S.I.E. Sample

State Institute of Education
P.O. Banipur, 24 Parganas,
West Bengal.

Sample Unit Tests in Geography

S. I. E Banipur.

State Institute of Education
P.O. Banipur, 24 Parganas.
West Bengal.

SAMPLE UNIT TESTS
IN
GEOGRAPHY

H. S. SRIVASTAVA
KAMLA SESHAN

Library

विद्ययाऽमृतमश्नुते

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Foreword

In the traditional scheme of examinations, the main aims were grading, classification and certification. The concept and approach of formative evaluation, however, envisages examination as a means of improving achievement rather than merely assisting it. This purpose can be served if evaluation is comprehensive rather than segmented, and continuous rather than periodical, because only then will their results be able to provide the valuable feedback to both teachers and students for improving their performances.

As concrete examples of such evaluation, some unit tests have been prepared by the Examination Reform Unit and I am very happy in presenting this publication to the teachers who, I am sure, will find the material useful in helping their students realise the objectives of Geography teaching.

I congratulate Prof. H. S. Srivastava, Head, Examination Reform Unit and Kamala Seshan, Lecturer, Examination Reform Unit for initiating this project and for their efforts in making this publication possible. I am also appreciative of all those who have contributed to the development of this publication.

New Delhi
1 March, 1979

SHIB K. MITRA
Director
National Council of
Educational Research and Training

Preface

With education putting on a new garb, teachers in schools would now be faced with the important task of evaluating the new curriculum, and to find out as to how far the objectives set forth by it have been achieved in the class room. The teacher would also be required to know through the evaluation tools and procedures, pressed into service, about areas where instruction may have failed and where it may need change. Similarly, pupils should also know clearly what they have learnt and how well they have done so. Thus all pupils could be motivated to master the subject which is taught and the teacher to develop learning strategies for helping pupils acquire the desired abilities, proficiencies and qualities.

It is to attain this purpose that the present brochure entitled 'Sample Unit Tests in Geography' was developed. Apart from an introduction on Unit Tests, their purpose and approach to their preparation, a series of 20 tests are included in the brochure. These tests cover all Units of the curriculum of classes IX and X and could be used as end-of-the-topic tests. Following the method of preparing balanced tests, Blueprint and Marking Scheme as also the Question-wise Analysis accompany each test to ensure objective scoring and analysis of responses. Instructional objectives of Geography are also included in the appendix.

As such these tests are only one of the many which can be developed. After this effort we hope the teachers can fruitfully undertake the development of their own comprehensive Test Libraries in Geography in Schools.

I am specially grateful to Shri Prabhakar Singh, Field Adviser (NCERT), U. P. for the special interest he took in the project and for the academic and organisational help extended by him in the development of the brochure. Thanks are also due to Dr. S. S. Dabaria, Shri A. N. Sachdeva, L.R. Singh, Dr. (Smt.) Subhagwati Singh, Dr. L.N. Verma, Dr. P.C. Kumbhat, Shri M.C. Srivastava, Shri S.S. Rastogi, Shri B.L. Garg and Km. Ashoklata Jain, individually and as a team for preparing the tests, and finalising this publication.

The brochure is an outcome of intensive year-long efforts of Kamala Seshan who spared no pains in providing leadership to the project from its very inception. She deserves congratulations for this admirable venture aimed at the qualitative improvement of education.

I am confident that the material contained in the brochure will be found useful. We, at our end, will be very happy to receive any comments and observations for the further improvement of the brochure.

H. S. Srivastava
Professor & Head
Examination Reform Unit

1 March, 1979

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Objectives and Techniques of Evaluation

1. EVALUATION AS AN INTEGRAL PART OF TEACHING AND LEARNING

Evaluation of pupil growth is as much a responsibility of the teacher as teaching. It is, therefore, necessary for a teacher to possess a thorough background and a deep insight into the techniques of evaluation and the tools they may find useful.

With the emergence of new approaches to the study of geography and the consequent stress on concepts and generalisations, a need has arisen for the definition of the level of achievement of pupils in terms of the wide range of skills, abilities and proficiencies which the pupil may acquire. In this process the shift from mere recall of facts and terms to their understanding and appreciation is easily perceived.

Therefore, the main components of evaluation could be listed as follows :

1.1 Evaluation is effective when it provides relevant evidences about the degree of growth in students' learning.

1.2 Evaluation is most effective when it provides for, and encourages self evaluation.

1.3 Evaluation is conducive to good instruction when it reveals the major types of inadequate learning and the nature of behaviourial changes which could be achieved.

1.4 To evaluate specific behaviour the development of activities and exercises is necessary and these could also be used beneficially for the consolidation of learning.

2. IDENTIFYING TEST SITUATIONS AND PREPARING QUESTIONS

The problem, however, is that so far mastery of facts and information has been relatively easy to test as is evident from the test items devised to test factual information. Now it has become necessary to ascertain the extent to which children have formulated important basic ideas or generalisations and the ability they have acquired for assessing the worth of generalisations and conclusions put forth by others. Since basic ideas are closely related to facts and information, it has become possible to test the ability, to draw conclusions from a communication, and to distinguish generalisations from facts. It is for testing such complex situations that test items are difficult to prepare and teachers need concrete illustrations for accomplishing this task.

Testing factual information :

2.1 As all techniques and tools of evaluation are not suitable for testing all situations, it is necessary to identify and use that technique and tool of evaluation which is most apt and appropriate for testing the objective and content area desired to be tested. The present brochure attempts to provide concrete illustrations with regard to this.

2.2 The tests presented cover as wide a range of topics and abilities in as many testing situations as possible but cannot be considered as complete in all respects. It gives illustrations of test items based on factual information and methods of devising them which would exploit the teaching-learning experiences provided. In such situations pupils are required to :

i. arrange steps in a process,
ii. match climatic types with regions,
iii. select from a collection of facts those related to each other in a designated way,
iv. match principles and their applications,
v. select statements which explain theories,
vi. select methods to solve problems,
vii. select criteria to judge phenomena.

2.3 While knowledge and information form the foundation it is only the beginning of the process of acquisition of abilities. In this process comprehension or understanding are the next steps in the hierarchy of cognitive abilities This brochure also contains illustrations of items that constitute this next step.

Thus the brochure contains tests which have items requiring a response to demands like :

i. identifying relationships of cause-effect, sequence, chronology,
ii. distinguishing facts and generalisations derived from charts, data, graphs and tables,
iii. selecting valid conclusions from a list of probable conclusions derived from a communication,
iv. supporting generalisations with facts,
v. selecting or stating the most important conclusion of a communication,
vi. giving illustrations to explain phenomena,
vii. detecting errors and correcting them,
viii. selecting responses which emphasise why something happened or why a condition exists,
ix. analysing inter-relationships among different ideas in a communication.

2.4 The next step, higher to that of comprehension or understanding, is application, analysis, synthesis and evaluation. These abilities differ from comprehension in that the pupil is not only required to understand a principle but also recognise whether it is applicable in the given case. The abilities that are required are:

i. identification and classification of the different ideas in a communication,
ii. verification of inferences drawn from an inference against given facts,
iii. identification of trends of phenomena or events,
iv. prediction of trends from given facts and their inter-relationship,
v. interpretation of restructuring data to draw new inferences and examination of the facts and assessment of the idea.

2.5 In a subject like geography there is a lot of scope for development of skills and so it also admits of a wide variety of situations where skills can be evaluated. Abilities in this area mostly constitute those relating to the psychomotor aspect. The essential evaluative criteria of most of these situations is proposition, precaution and precision. Items testing these are also included in the tests contained in this brochure. These situations enable the pupil to :

i. interpret maps, locate cultural and physical features,
ii. translate data from one form into another—verbal or numerical to graphic or vice versa,
iii. propose a plan for area development based on maps of city layout or rural settlement distribution,
iv. locate important places, towns, routes, etc. of a country.

3. These test situations are only examples of the many varieties of items which could be prepared depending on the purpose of the test and the content and the level of the pupil's learning. Whatever the situation may be its effectiveness lies in its proper use and follow-up provided by the teacher.

In this connection the construction of a test also assumes great importance and the tests in this brochure have been developed after careful planning and it is only when they are used and scores interpreted that their relevance can be ascertained. The two stages that are identified are the building and the planning of a test. The former has been exhaustively dealt with in the section on test situations and its planning stage involves the following steps which are to :

3.1 *Utilise content outline*

Arrangement of content so that the key concepts, generalisations, principles, data and technique skills are sequentially listed along the 'Y' axis of a grid.

3.2 *Utilise the specific behaviourial objectives*

Listing of specific objectives and arrangement along the 'X' axis of the same grid (Blueprint).

3.3 *Construct test items*

Combination of both content and process objectives by constructing test items. Wherever possible the test situations present problems and create situations which centre on the cognitive processes in which pupils must use the content and a check is necessary so that the same situations utilised in the class room are not given. Novel situations which compel pupils to apply their concepts and generalisations to unfamiliar situations are required to be presented.

3.4 *Utilise the measurability factors as stated in the objectives*

Items must reflect the specified quantitative or qualitative conditions, and weightage assigned to them reflects the same.

3.5 *Provide an adequate sampling of the unit's objectives*

It should be ascertained that there is a sufficient number of items representing key objectives as well as a number representing the others. A number of objectives could be combined in an item. A record of the number of test items in terms of content and objective is necessary to be prepared to ensure adequate coverage in the test; this is known as a questionwise analysis.

3.6 *Weigh the test items*

At this point it is necessary to assign specific value points to the importance attributed to the objective and content for evaluating each response. Such an answer or scoring key giving the expected answer depends on the criteria established by the teacher and the number of levels of response that are anticipated by a particular free response item.

3.7 *Assemble the full unit test*

Arrangement of questions may be desirable when more than one variety of item is included in the test. In that case objective type items are administered together followed by short answer-type and then essay questions. Sometimes when all items are free-response type it may be necessary to arrange questions according to the content or objectives for easy interpretation of the result.

4. The tests in geography as presented in this brochure are developed along these lines and provide a unit test in every aspect of content area as prescribed in the syllabi for classes IX and X. These tests would help students review a topic after it is taught in the class and find out the shortcomings and strengths of their learning. This experience during the year would prepare them to face the summative test with confidence and would lead to better results.

Temperature

Unit 1 : Temperature
Maximum Marks : 25

Class : IX
Time : 40 Min.

BLUEPRINT

Objective	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
Form of Question / Content Unit	E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O	E	SA	
Insolation		2(1)*										2(2)		1(—)*	5(3)
Factors affecting temperature		3(1)						2(2)				1(1)			6(4)
Vertical and horizontal distribution of temperature						2(1)*				3(1)				1(—)*	6(2)
Patterns of world distribution of temperature				1(1)		2(1)*		2(2)				2(2)		1(—)*	8(6)
Sub Total		5(2)		1(1)		4(2)		4(4)		3(1)		5(5)		3(—)	
Total	6(3)				8(6)				8(6)				3(—)		25(15)

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
* *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No.	Marks :
Short Answer (SA)	No. 5	Marks : 15
Very Short Answer (VSA)	No.	Marks :
Objective (O)	No. 10	Marks : 10
	15	25

Scheme of Options :

Scheme of Sections ;

Temperature

Class : X

M. Marks : 25
Time : 40 minutes

INSTRUCTIONS

I. All questions are compulsory.

II. Read the question carefully before answering.

III. Answers have to be written in the answer book.

IV. In questions 2 to 9 there are answers marked A,B.C,D. Only one of these is the correct answer. The letter indicating the correct answer should be written in bold letters against the question number in the answer book.

V. Questions 1-10 carry one mark each and 11-14 carry three marks each.

1. A. Decrease of temperature from Equator to poles.
   B. Variation in the rate of cooling and heating of land and sea.
   C. Apparent migration of the sun north and south of the Equator.
   D. Effect of ocean currents on land temperatures.
   E. Effect of heating of lower layers of the atmosphere by ground radiation.

   Which of the above causes the following effects ?
   a. Marked east to west trend of the average annual temperature isotherms.
   b. Low gradient of isotherms of temperature over ocean.
   c. Half yearly sunshine over the poles.
   d. Summer isotherms in the northern hemisphere shift further north in July and further south in January.

2. The Thermal Equator is identified as the area of :
   A. 0° latitude
   B. Highest mean temperature
   C. Mean summer temperature
   D. Highest absolute temperature.

3. Over large areas of water the shift of the isotherm throughout the year is small whereas over land masses it is as much as 20° of latitude. Which of the given isotherms corresponds to this generalisation.
   A. 20°C isotherm over Brazil
   B. 21°C isotherm over South Africa
   C. 23°C isotherm over Central America
   D. 20° isotherm over North Africa.

4. The temperate maritime west coast is similar to the temperate maritime east coast in that usually:
   A. Rainfall is well distributed all year
   B. Annual temperature range is small
   C. Winter temperatures are uniform

D. Rainfall is more in winters.

5. Grape vines are cultivated on the higher slopes of mountains in southern France rather than in the valleys because:

A. Air on the mountain top is warmer

B. Air at the bottom of the valley is cold

C. Frost quickly settles in the valleys

D. Less heat reaches the valley floors.

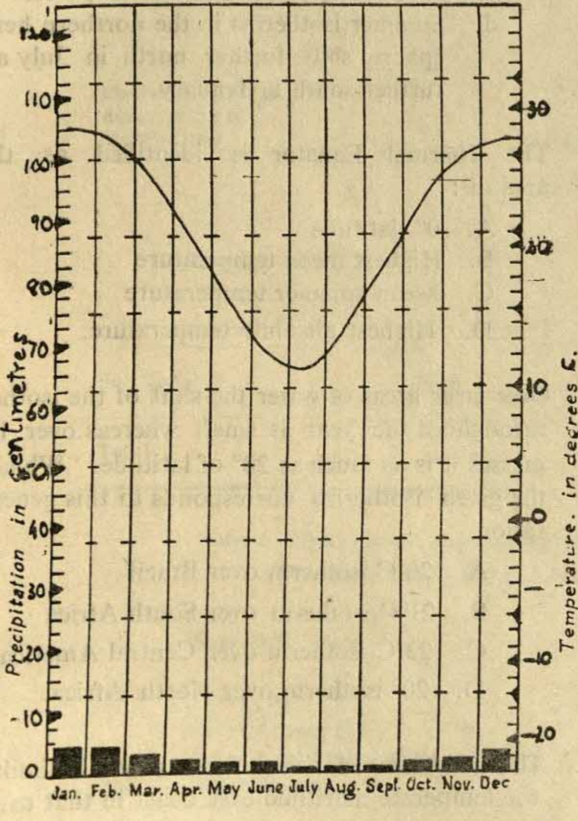
6. If the earth's axis changes its parallelism to the plane of its orbit which of the following changes would occur ?

A. Change in the climates of the earth

B. Change in the amount of sunshine on earth

C. Slow revolution of the earth

D. Change in the speed of the earth's rotation.



7. The climatic graph given above is representative of :

A. Humid subtropical

B. Trade wind climate

C. West coast marine

D. Tundra.

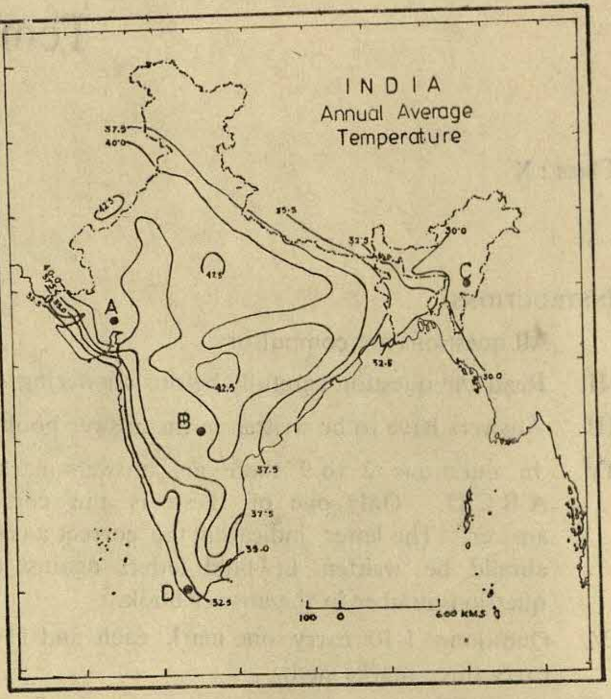
8. The position of the sun twice overhead at the Equator is due to the:

A. Rotation of the earth with an inclined axis

B. Rotation and revolution of the earth

C. Elliptical path of the earth's orbit

D. Parallelism of the inclined axis.



The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

9. In the above map which of the following points shows the area with temperature greater than 40°C ?

A. Ahmedabad

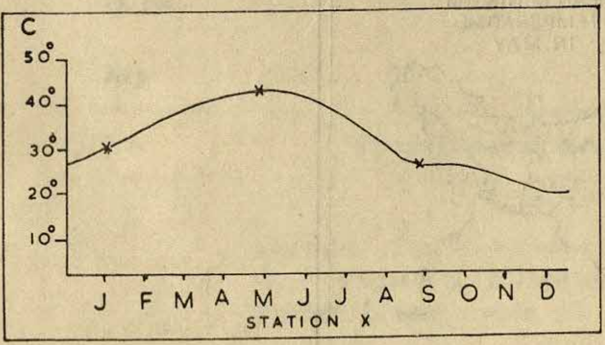
B. Hyderabad

C. Imphal

D. Trivandrum

10. Why does Greenland which is ice-bound all year have a lower range of temperature than Dras in Ladakh (India) ?

11. Explain with the help of a diagram why heat effectiveness of the sun's rays declines with increasing inclination.



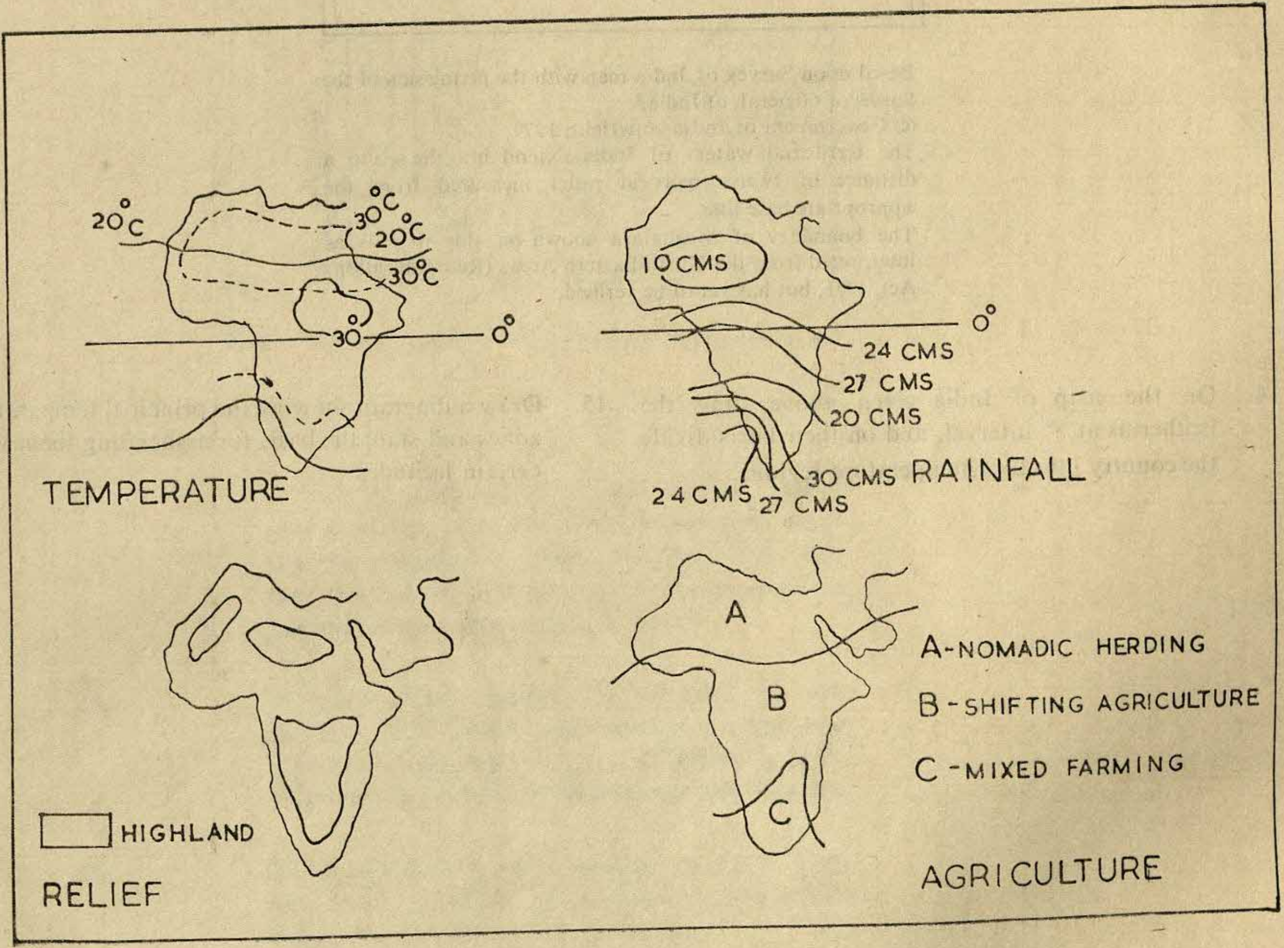
12. Study the temperature graph given above and state in which range of latitudes station X is most likely to lie. Give reasons in support of your answer.

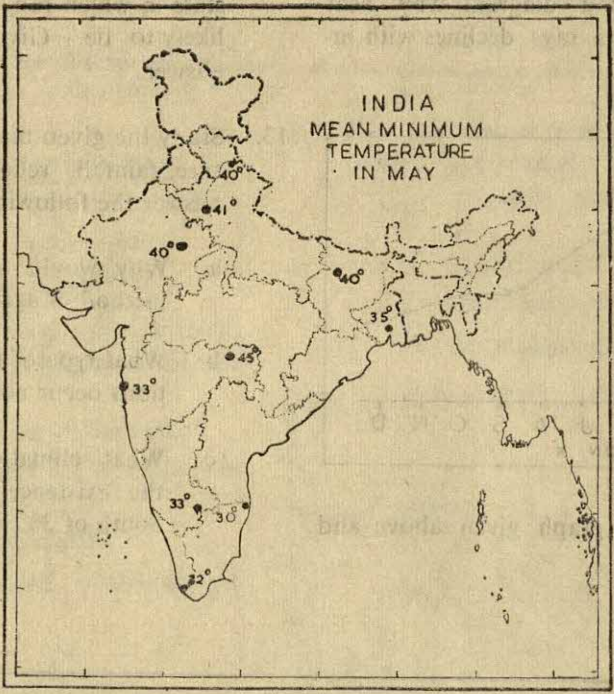
13. Study the given maps of Africa showing temperature, rainfall, relief and agricultural regions and answer the following :

a. Why would shifting agriculture be the best method of agriculture in Central Africa ?

b What type of temperature and rainfall conditions occur north of 20° N latitude ?

c What climatic and relief conditions favour the existence of mixed farming in the area South of 30° latitude ?





Based upon Survey of India map with the permission of the Surveyor General of India.

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The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

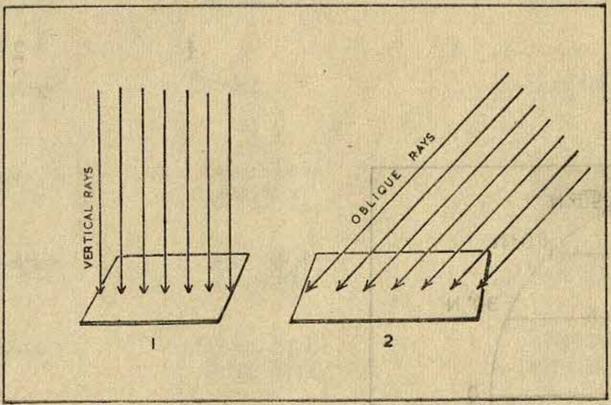
The boundary of Meghalaya shown on this map is as interpreted from the North-Eastern Areas (Reorganisation) Act, 1971, but has yet to be verified.

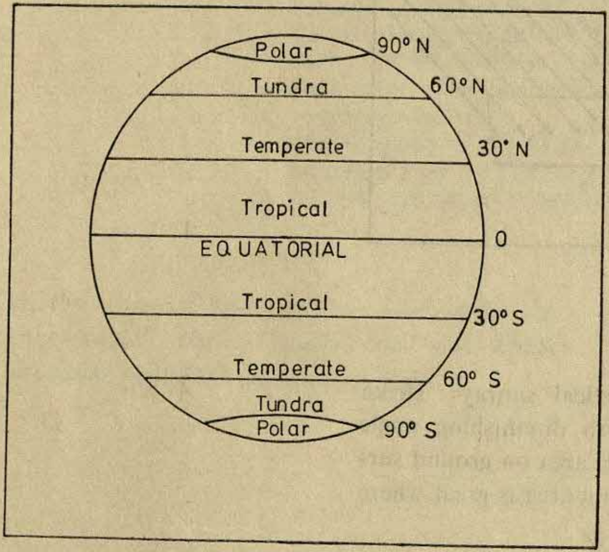
14. On the map of India given above, draw the isotherms at 5° interval, and on their basis divide the country into four temperature regions.

15. Draw a diagram showing the principal temperature zones and state the basis for associating them with certain latitudes.

Scoring Key and Marking Scheme

Q. No.	1.a	1.b	1.c	1.d	2	3	4	5	6	7	8	9
Key	A	B	C	C	B	B	B	C	A	B	D	A

Q. No.	Expected outline answer	Value of points	Mark
10.	Greenland has an ice cover all the year round whereas Dras is landlocked and hence experiences extremes of temperature.	3	3
		1	
11.	As the diagram shows vertical sunrays strike over a smaller area and with diminishing angle sunrays spread over a great area on ground surface. Hence, the heat per unit area is great where sun's rays strike vertically.	2	1+2=3
12.	10° to 25° North because in this zone the sun takes a path towards the tropic of Cancer and crosses these latitudes during the month of April, May and June, which results in high temperature.	3	
13a.	The highland area and temperatures above 20°C with 24 cm. to 30 cm. of rainfall leave very little cultivable area for settled agriculture.	1	

Q. No.	Expected outline answer	Value of points	Marks
13b.	North of 20°N latitude is a dry desert belt with temperatures above 30°C and less than 5 cm. rainfall	1	
13c.	In South Africa, below the 30° latitude, temperatures are above 20°C and the area gets 30 cm. rainfall mostly in winter which is the temperate climate. This favours mixed farming here.	1	1+1+1=3
14.	Draws isotherms on the map supplied.	2	
	Regions to be shaded (i) Above 40°C (ii) 35-40°C (iii) 30-35°C (iv) Less than 30°C.	1	2+1=3
	 Polar 90° N Tundra 60° N Temperate 30° N Tropical EQUATORIAL 0 Tropical 30° S Temperate 60° S Tundra Polar 90° S	1	
15.	Due to the inclination of the earth the sun's path in the sky seems to change. Solar energy reaching the earth's surface varies from latitude to latitude being highest on the equator and lowest at the poles. This provides a basis for dividing the globe into latitudinal zones of temperature.	2	1+2=3

Question-Wise Analysis

S. No.	Objective	Specification	Content unit	Type of Questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recalls	Patterns of world temperature distribution	O	1	1	B
2.	Understanding	Identifies	Factors affecting temperature	O	1	1	B
3.	Understanding	Gives reasons	Factors affecting temperature	O	1	1	B
4.	Understanding	Compares	Patterns of world temperature distribution	O	1	1	A
5.	Understanding	Gives reasons	Patterns of world temperature distribution	O	1	1	A
6.	Application	Predicts	Insolation	O	1	1	A
7.	Application	Infers	Insolation	O	1	1	A
8.	Application	Selects from given facts	Factors affecting temperature	O	1	1	A
9.	Application	Selects from given facts	Patterns of world distribution of temperature	O	1	1	A
10.	Application	Establishes relationship	Patterns of world distribution of temperature	O	1	1	C
11.	Skill	Draws	Insolation	SA	3	6	C
12.	Knowledge	Recognises	Factors affecting temperature	SA	3	6	B
13.	Understanding Skill	Discriminates	Vertical and horizontal distribution of temperature	SA	3	6	B
14.	Understanding Skill	Draws and gives reasons	Patterns of world distribution of temperature	SA	3	6	B
15.	Application	Infers	Vertical and horizontal distribution of temperature	SA	3	6	A

†*E* *Essay*
SA *Short Answer*
VSA *Very Short Answer*
O *Objective*

**A* *Difficult*
B *Average*
C *Easy*

Wind System

Unit 2 : Wind System
Maximum Marks : 25

Class : X
Time : 40 Min.

BLUEPRINT

Objective / Form of Question / Content Unit	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
	E	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	
Permanent Winds			1(1)	1(1)	*3(1)	2(1)							*2(—)		9(4)
Seasonal or periodic winds		2(1)						2(2)				1(1)			5(4)
Variable winds		2(1)				2(1)		1(1)				1(1)			6(4)
Local winds		2(1)					1(1)					2(2)			5(4)
Sub Total		6(3)	1(1)	1(1)	3(1)	4(2)	1(1)	3(3)				4(4)	2(—)		25(16)
Total	8(5)				11(7)				4(4)				2(—)		25(16)

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
* *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No. 1	Marks 5
Short Answer (SA)	No. 5	Marks 10
Very Short Answer (VSA)	No. 2	Marks 2
Objective (O)	No. 8	Marks 8

Scheme of Options :

Scheme of Section :

Wind System

Class: X

M. Marks : 25
Time : 40 minutes

INSTRUCTIONS

- I. All questions are compulsory.
- II. Read the question carefully before trying to answer it.
- III. Answers have to be written on the answer book provided.
- IV. Be quick in answering the questions.
- V. Do not waste time on the question the answer of which you are not sure.
- VI. In questions 1 to 8 there are five answers marked A, B, C, D and E. Only one of these answers is correct. The letter indicating the correct answer should be written in capitals on the answer book.
- VII. Questions 1 to 10 carry one mark each, questions 11 to 15 carry two marks each and question 16 carries five marks.

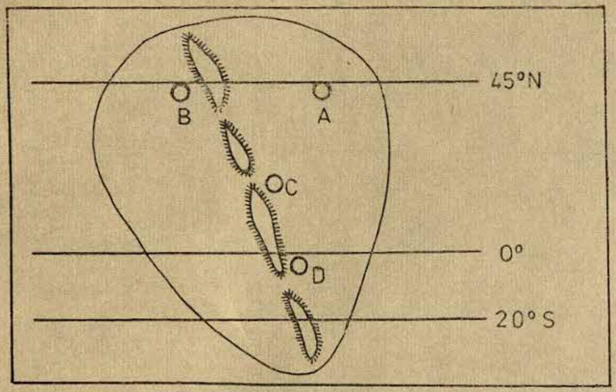
1. In which of the following regions do the 'Brave West Winds' blow ?
   - A. North Atlantic Ocean
   - B. Southern Ocean
   - C. Mid-Pacific Ocean
   - D. Indian Ocean
   - E. Arctic Ocean.

2. Which one of the following is most distinct from the remaining four with regard to period of rainfall ?
   - A. Orissa coast
   - B. Konkan coast
   - C. Vidarbha region
   - D. Coromandal coast
   - E. Shillong plateau.

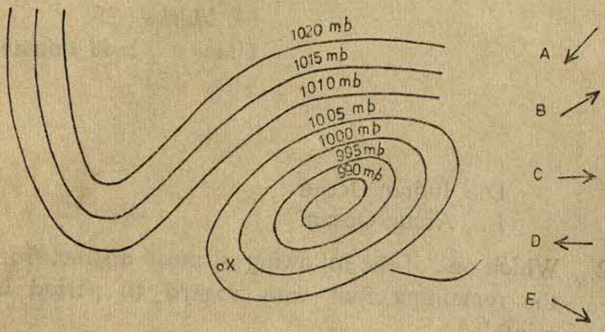
3. At which of the following places would one get the best evidence of the influence of rotational deflection of monsoon winds ?
   - A. Bombay
   - B. Patna
   - C. Gauhati
   - D. Cuttack
   - E. Mussoorie.

4. Cyclones are called variable winds mainly because of the variation in :
   - A. Wind velocity
   - B. Periodicity of occurrence

C. Amount of rainfall
D. Regional distribution
E. Wind direction.



5. At which place on the diagram given above can one best expect the highest incidence of seasonal rainfall.



6. Given above is an isobaric representation of a pressure system prevailing at a particular place around 45°N. Which of the (directions A,B,C,D,E) could be the most probable wind direction at the place marked "X"

7. "When the sun rose high in the sky a refreshing breeze began to below."
For which of the following regions would this be most true ?
   A. Peruvian coast
   B. Canadian prairies
   C. Congo basin
   D. Alpine valley
   E. Tibetan plateau.

8. Planetary circulation of winds is just a generalisation with many exceptions to it. The direction of which of the following best substantiates this statement ?
   A. Tornados in the Gulf of Mexico
   B. Typhoons near Japan
   C. Retreating monsoons in the Bay of Bengal
   D. Summer monsoon in the Arabian Sea
   E. Brave West Winds.

9. State the direction of prevailing winds blowing from the "Horse" to the equator in the Northern Hemisphere.

10. State the principle which commonly explains Fohn action and the occurrence of rain-shadow area.

11. Name four regions outside Asia which are subjected to seasonal blowing of winds.

12. Name a local wind blowing in the northern part of India during summer, stating the regions over which it blows and its direction.

13. What is an eye of a cyclone and what kind of weather is associated with it ?

14. State why the direction of wind movement in a cyclone in the southern hemisphere differs from that in the northern hemisphere.

15. Towards which direction would the wind blowing from the latitude 25° S to 20° S deflect and why ?

16. Explain how the occurrence and location of subtropical belts of calm are affected over the year by the rotation of the earth and the inclination of its axis. Illustrate your answer with a diagram.

Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	7	8
Key	B	D	A	E	C	A	A	D

Q. No.	Expected outline answer	Value of points	Total marks
9.	North-east	1	1
10.	Descending winds getting warmed up owing to compression, hence no condensation.	1	1
11.	Any four (i) Northern Australia (ii) Eastern Africa (iii) Mexico (iv) Guinea Coast (S. America) (v) Brazil.	½ each	2
12.	(i) Loo (ii) Rajasthan, U.P., Bihar (iii) N.W. to S.E. or West to East in U.P. and Bihar (iv) N.E. to S.W. in the Punjab plain and North Rajasthan.	½ each	2
13.	(i) In the centre of the cyclone there is a limited region measuring a few square kilometres in which almost complete calm conditions prevail. This is called the 'eye' of the cyclone	1½	
	(ii) Fine weather.	½	2
14.	In the northern hemisphere the speed declines towards the north whereas in the southern hemisphere it does so towards the south.	2	2
15.	(i) Towards left	½	
	(ii) Wind from a place of lower rotational speed to a place of higher rotational speed lags behind.	½	
	(iii) In the southern hemisphere it deflects (falls back) towards its left (Ferrel's Law).	1	2

Q. No.	Expected outline answer	Value of points	Total marks
16.	(i) Wind rising above the equatorial belt moves towards the poles at about 6000 ft. height.	1	
	(ii) Rotational deflection. Filling up of air along 30°-40°N and S.	1	
	(iii) Because of the inclination of the axis of the earth, the heat-equator swings up and down by about 5 to 7 degrees of latitude and so do the belts of calm.	1½	
	(iv) Figure showing the shifting of the belts of calm.	1½	5

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of questions	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recalls	Permanent winds	O	1	1	B
2.	Understanding	Discriminates	Seasonal winds	O	1	1	B
3.	Understanding	Sees relationship	Seasonal winds	O	1	1	A
4.	Understanding	Explains	Variable winds	O	1	1	A
5.	Application	Selects relevant facts	Seasonal winds	O	1	1	A
6.	Application	Selects relevant facts	Variables	O	1	1	A
7.	Application	Infers	Local winds	O	1	1	A
8.	Application	Analyses	Local winds	O	1	1	A
9.	Knowledge	Recalls	Permanen twinds	VSA	1	2	C
10.	Understanding	Sees relationship	Local winds	VSA	1	3	B
11.	Knowledge	Recalls	Seasonal winds	SA	2	3	B
12.	Knowledge	Recalls	Local winds	SA	2	3	B
13.	Knowledge	Recalls	Variable winds	SA	2	3	B
14.	Understanding	Compares	Variable winds	SA	2	3	C
15.	Understanding	Sees relevant facts	Permanent winds	SA	2	3	B
16.	Understanding skill	Explains & Draws	Permanent winds	E	5	22	B

†E	*Essay*
SA	*Short Answer*
VSA	*Very Short Answer*
O	*Objective*

**A*	*Difficult*
B	*Average*
C	*Easy*

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Rainfall

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Unit 3 : Rainfall
Maximum Marks : 30

Class : X
Time : 45 min.

BLUEPRINT

Objective	*Knowledge*				*Understanding*				*Application*				*Skill*		
Form of Question / **Content Unit**	E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O	E	SA	Total
Types of Rainfall	2(1)					2(1)		1(1)							5(3)
Causes of Rainfall				1(1)	3(1)							1(1)	1(–)		6(3)
Rainfall Regimes				1(1)	2(1)					2(1)					5(3)
Cyclones				1(1)				1(1)			1(1)	2(1)			5(4)
Monsoons	2(1)						1(1)	1(1)							4(3)
Regional Distribution in India				1(1)			1(1)	1(1)				2(1)			5(4)
Sub Total	4(2)	2(1)	2(2)	3(1)	4(2)	2(1)	2(2)	4(4)		2(1)			1(—)	4(2)	
Total	8(6)				13(9)				4(3)				5(2)		30(20)

Notes: *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
** Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No. 4	Marks : 4
Short Answer (SA)	No. 2	Marks : 14
Very Short Answer (VSA)	No. 1	Marks : 4
Objective (O)	No. 1	Marks : 8

Scheme of Options :

Scheme of Section :

Rainfall

Class : X

M. Marks : 30
Time : 45 minutes

INSTRUCTIONS

I. All questions are compulsory.

II. Read the questions carefully before trying to answer.

III. Answers have to be written on the answer book.

IV. Be quick in answering the questions.

V. Do not waste time on a question when you are not sure of the answer. Pass on to the next.

VI. In questions 1 to 8 there are four proposed answers marked A, B, C and D. Only one of these answers is correct. The letter indicating the correct answer should be written in bold letters against the question number in the answer book.

VII. Questions 1 to 12 carry one mark each. Questions 13 to 19 carry two marks each and question 20 carries four marks.

1. At which of the following places is low rainfall due to its location in a rain shadow area ?
   - A. Bikaner
   - B. Lahore
   - C. Raichur
   - D. Kandla.

2. In which of the following regions does convectional rain generally occur ?
   - A. Equatorial
   - B. Mediterranean
   - C. Monsoon
   - D. Cool temperate western margins.

3. For which of the following reasons does Leh receive almost negligible snowfall in spite of high altitude and northerly position in the Himalayas ?
   - A. Sunny slopes
   - B. River valley site
   - C. Day climate
   - D. Cyclonic disturbances.

4. Which one of the following places is different from the rest with regard to the reason of maximum rainfall ?
   - A. Lisbon
   - B. Tokyo
   - C. Calcutta
   - D. New York.

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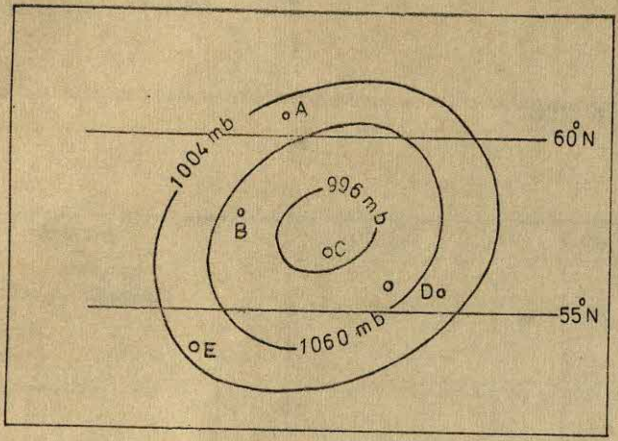
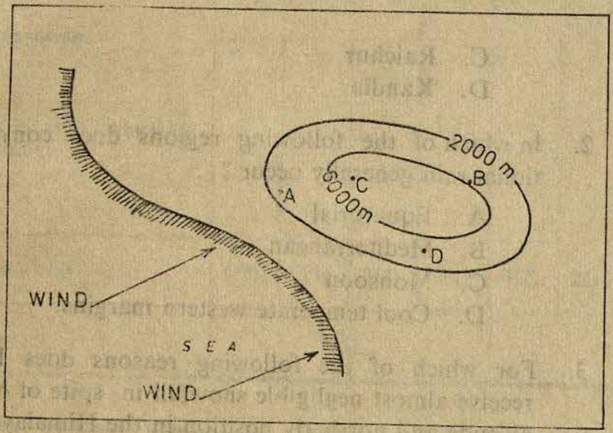


5. In the diagram of a cyclone given above which place among A, B, C and D is likely to receive the heaviest rainfall ?

6. Which of the following stretches of land represents decreasing annual rainfall ?
   - A. Darjeeling to Mussoorie
   - B. Bombay to Ratnagiri
   - C. Jaipur to Udaipur
   - D. Bangalore to Hyderabad.



7. In the diagram given above which of the places (marked A, B, C and D) is most likely to receive the highest amount of rainfall ?

8. A deep cyclone is sighted around Port Blair in the month of December.
   The authorities of which of the following parts could be most alarmed ?
   - A. Rangoon
   - B. Madras
   - C. Bombay
   - D. Calcutta.

9. Name the State south of the Vindhya Ranges in India which receives the highest amount of rainfall.

10. In which direction are winds deflected in an anticyclone in the northern hemisphere ?

11. Why does thunder often accompany a hailstorm ?

12. Hot deserts are caused due to out-blowing winds. One other important characteristic of the winds of this region is missing in the above statement. State it.

13. State the two months during which the rainfall is heaviest in Tamilnadu. Give the reasons for it.

14. State the main type of clouds which are associated with heavy rainfall. What immediate changes take place in them when they bring about rain ?

15. Why is there an almost daily occurrence of rainfall in the afternoon in the equatorial region ?

16. How do the warm temperate regions on the western margins differ from those on the eastern margins of continents in respect of amount and distribution of rainfall over a year.

17. The equatorial regions generally get higher rainfall during September and March than during June and December. Explain.

18. On the given outline map of the world:
   - a. Shade the area affected by typhoons.
   - b. Show the direction from which temperate cyclones reach our country.

19. In the map of the world provided shade the areas which receive rainfall :
   - a. Above 200 cm. in Africa.
   - b. Less than 50 cm. in South America.

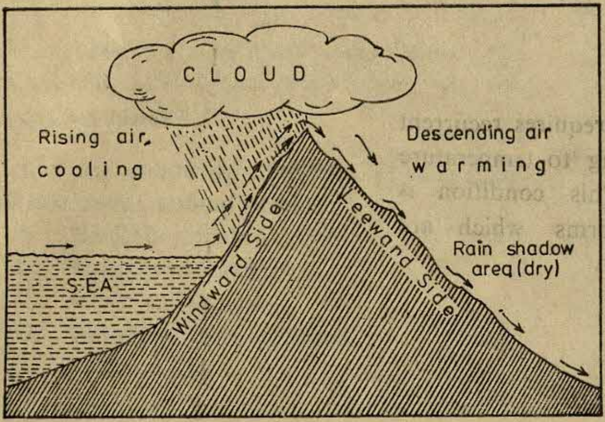
20. Explain how a mountain barrier influences the occurrence of rainfall. Also draw a diagram to illustrate your answer.

Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	7	8
Key	C	A	C	A	B	C	A	B

Q. No.	Expected outline answer	Value of points	Total marks
9.	(i) Kerala	½	
	(ii) Over 1000 cms.	½	1
10.	To their right	1	1
11.	The formation of hailstorms requires recurrent high speed updraft of air leading to temperature falling to freezing point. This condition is provided by convectional storms which are usually accompanied by thunder.	1	1
12.	Falling (descending) winds	1	1
13.	i. (a) Summer monsoon	½	
	(b) Winter (autumn)	½	
	ii. October to December. (any two months will do)	½ each	2
14.	i. Cumulus Nimbus	⅓	2
	ii. Condensation of water vapour below dew point owing to fall in temperature.		
15.	i. Evaporation and rise of air in the forenoon, reaching saturation in the afternoon.	1	
	ii. Condensation and rain in the afternoon (convectional effect).	1	2
16.	i. More on eastern margin	1	
	ii. Mainly in winter on western margins		
	iii. Mainly in summer on the eastern margin.	½ each	2
17.	Higher temperature around equinoxes and hence greater convectional activity at that time. At the time of solstices the sun is vertical over the tropics.	2	2
18.	i. Shading of the area affected by typhoon (Japan and east coast of China.)	1	

Q No.	Expected outline answer	Value of points	Total marks
	ii. Showing the direction (north-east south-west).	1	2
19.	i. Shading the area above 200 cm. of rainfall in Africa	1	
	ii Shading the area less than 50 cm. of rainfall in South America	1	2



Q No.	Expected outline answer	Value of points	Total marks
20.	i. Rising air along the slope on windward side is cooled and gets saturated. It brings rainfall.	1½	
	ii. Descending wind on leeward side warms up leading to decrease in rainfall.	1½	
	iii. Diagram showing effect of mountain barrier on rising winds.	1	4

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of questions*	Marks allotted	Estimated time for answering	Estimated difficulty levle*
1.	Knowledge	Recognises	Relief rainfall	O	1	1	C
2.	Knowledge	Recognises	Convectional	O	1	1	C
3.	Understanding	Sees relationship	Snowfall	O	1	1	B
4.	Understanding	Compares	Regimes	O	1	1	B
5.	Understanding	Discriminates	Cyclonic type	O	1	1	B
6.	Understanding	Gives examples	Regional distribution	O	1	1	B
7.	Application	Establishes relationship	Relief rainfall				
8.	Application	Establishes relationship	Cyclonic type	O	1	1	A
9.	Knowledge	Recalls	Regional distribution	VSA	1	1	B
10.	Knowledge	Recalls	Cyclonic type	VSA	1	1	C
11.	Understanding	Illustrates	Hailstorm	VSA	1	1	B
12.	Understanding	Sees cause-effect relationship	Regional distribution	VSA	1	1	B
13.	Knowledge	Recalls	Regional	SA	2	2	C
14.	Knowledge	Recalls	Clouds	S	2	2	C
15.	Understanding	Sees relationship	Convectional rain	SA	2	3	B
16.	Understanding	Gives reason	Regional distribution	SA	2	4	B
17.	Application	Establishes relationship (cause-effect)	Convectional rain	SA	2	4	A
18.	Skill	Draws	Cyclonic type	SA	2	4	B
19.	Skill	Draws	Regional distribution	SA	2	4	C
20.	Und./Skill	Explains and draws	Relief type	E	4	10	B

†*E*	*Essay*
SA	*Short Answer*
VSA	*Very Short Answer*
O	*Objective*

**A*	*Difficult*
B	*Average*
C	*Easy*

Climatic and Natural Regions

Unit 4 : Climatic and Natural Regions **Class : X**
Maximum Marks : 30 **Time :** 40 Min.

BLUEPRINT

Objective	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
Form of Question / **Content Unit**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	
1. Equatorial Region								2 1(1)		12 2(1)		5 1(1)			4(3)
2. Hot Deserts	16 5(1)														5(1)
3. Mediterranean					17 5(1)										5(1)
4. Temp. Grass Lands				1 1(1)			7 1(1)							14 2(1)	4(3)
5. Tundra Region										13* 1(1)			13* 1(–)	13 2(1)	4(2)
6. Regions of India 6.1 Himalayan 6.2 Northern G. Plain 6.3 Plateau R. 6.4 Coastal Pl.		11 2(1)					8 1(1)	3 1(1) 4 1(1)			2 1(1)	6 1(1)	10 1(1)		2(1) 2(2) 2(2) 2(2)
Sub Total	5(1)	2(1)		1(1)	5(1)		2(2)	3(3)		3(2)	1(1)	2(2)	2(1)	2(1)	(17)
Total	8(3)				10(6)				6(5)				6(5)		30(17)

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
* *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No. 2×5	Marks 10
Short Answer (SA)	No. 5×2	Marks 10
Very Short Answer (VSA)	No. 4×1	Marks 4
Objective (O)	No. 6×1	Marks 6

Scheme of Options :

Scheme of Sections :

Climatic and Natural Regions

Class : IX-X

M. Marks : 30
Time : 40 minutes

INSTRUCTIONS

I. All questions are compulsory.

II. Read the question carefully before trying to answer it.

III. Answers have to be written in the answer book provided.

IV. Be quick in answering and do not waste time on a question when you are not sure of the answer. Pass on to the next.

V. In questions 1 to 6 there are 4 proposed answers marked A, B, C and D. Only one of them is correct. The letter indicating the correct answer should be written in bold letter against the question number in the answer book.

VI. Questions 1 to 10 carry one mark each. Questions 11 to 15 carry two marks each and questions 16 and 17 carry five marks each.

1. Which of the following regions is situated in North America ?
   A. Steppes
   B. Prairies
   C. Veld
   D. Pampas.

2. "Each day is more or less the same, the morning is clear and bright with a sea breeze; as the sun climbs high in the sky, heat mounts up, dark clouds form, then rain comes with thunder and lightning. But rain is soon over". Which of the given regions is above described in the passage.
   A. Savannah
   B. Equatorial
   C. Monsoon
   D. Mediterranean.

3. Floods occur frequently in the Northern Plains of India because of :
   A. Presence of many large river courses
   B. Fluctuations of the level of the underground water table
   C. Long spells of rainy weather
   D. Uncertain and uneven occurence of rains in the plains.

4.

Months	J	F	M	A	M	J	J	A	S	O	N	D	Total
Rainfall in mm.	11.4	23.4	16.8	16.3	20.8	222.0	376.2	286.3	184.7	54.6	19.8	9.9	1422.2

Which of the following places in the plateau does the rainfall data given above represent.

A. Nagpur
B. Poona
C. Hyderabad
D. Bangalore.

5 Which of the given conditions of rainfall and temperature distinguishes the equatorial region from the monsoon region.

A. High seasonal variation of rainfall
B. Seasonal variation of rainfall and temperature
C. No seasonal variation of rainfall and temperature
D. High seasonal variation of temperature.

6. Open stunted forests and bush growing wild, and small trees having long roots armed with sharp spines or thorns are vegetation common to the :

A. Siwaliks and Terai Region
B. North Eastern portion of the Plateau region
C. Semi-arid parts of the Deccan Plateau
D. Wet sub-tropical hill vegetation.

7. How do the steppe grasslands of the U. S. S. R. differ from the steppe grasslands of the U. S. A. in respect of rainfall conditions ?

8. Mention against each of the following the months during which the conditions for open-sea fisheries are not very conducive.

(i) Western coast of India
(ii) Eastern coast of India.

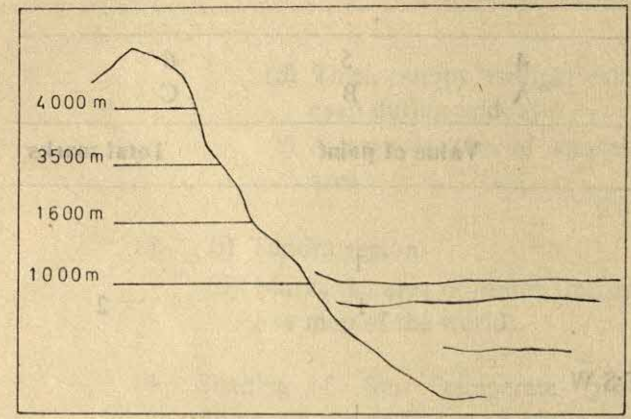
9. Compare the monthly rainfall data of Madras and Trivandrum. State the similarity and difference with regard to the amount of rainfall.

Rainfall (in m.m.)

Months	J	F	M	A	M	J	J	A	S	O	N	D
Madras	46	13	13	18	40	45	87	113	119	306	350	139
Trivandrum	30	21	39	106	208	356	223	146	138	273	206	75

10. State two points regarding rainfall and vegetation on the basis of which the Himalayas can be

divided into two distinct regions in the East-West direction.



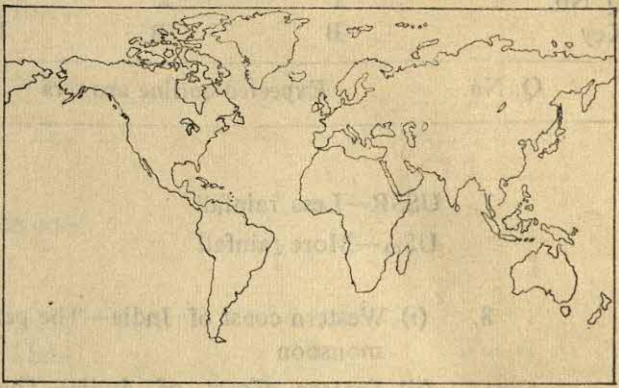
11. The diagram given above represents a cross section of a part of the Himalayas from north to south. Mark in this diagram in each of the elevation belts, the sequence of appropriate vegetation.

12. The temperature and rainfall graph of a place representing a particular region is given below. Name the natural region and also state two chief characteristics of the vegetation found in the region.

Months	J	F	M	A	M	J
Temperature (in °C.)	27	27	27	28	28	27
Rainfall (in cm.)	25	17	19	19	17	17

Months	J	A	S	O	N	D
Temperature (in °C)	27	27	27	27	27	27
Rainfall (in cm.)	17	20	17	21	25	27

13. "These regions are free from the during the short summer and low plants like mosses and lichens grow abundantly. Reindeer caribon and other animals graze on these plants. White bear, beaver, fox and mink are the typical animals found in this region." Read the above description carefully and name the natural region to which this description belongs. Also mark the area of this natural region on an outline map of the world provided below.



14. In the outline map of the world provided above, mark the approximate latitude within which the temperate grasslands are situated. Also mention the local names of these grasslands in each continent.

15. Draw a temperature and rainfall graph based on the following climate data.

Months	J	F	M	A	M	J
Temp. (°C)	28.3	25.0	25.6	18.9	—6.1	1.7
Rainfall (cm.)	0.8	0.5	0.5	0.8	0.8	0.8

Months	J	A	S	O	N	D	Total
Temp. (°C)	4.4	3.9	—0.6	—8.9	—21.7	—26.1	53.86
Rainfall (cm.)	2.8	2.0	1.3	2.0	1.0	1.0	14.30

16. All or some of the following factors help in the location of hot deserts in a specific belt throughout the world. Explain how these factors are operative in the location of West Australian Desert.
    (i) Sub-tropical high pressure
    (ii) Trade winds
    (iii) Cold current
    (iv) Location of mountains.

17. Compare and contrast the Mediterranean type with the China type under the following heads :
    Latitudinal location, Cause of climate, Period of rainfall, Similarity of temperature.

Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6
Key	B	B	D	A	B	C

Q. No.	Expected outline answers	Value of point	Total marks
7.	USSR—Less rainfall	1	
	USA—More rainfall	1	2
8.	(i) Western coast of India—The period of S.W. monsoon	1	
	(ii) Eastern Coast of India—The period of retreating monsoon.	1	2
9.	(i) Similarity—Heavy rainfall in both the places during the period of retreating monsoons	1	
	(ii) Difference—Heavy rainfall at Trivandrum and low at Madras during the period of S.W. monsoon.	1	2
10.	Regions (i) Western Himalayas (ii) Eastern Himalayas.	1	
	Points (i) Rainfall—Heavy on eastern Himalayas. Low on the western.		2
	(ii) Vegetation—Dense forest on eastern Himalayas and Sparse on western Himalayas.	1	
11.	(i) Terai and Foot hills—Tropical moist deciduous	½	
	(ii) Siwalik (upto 1600 metres)—Sub-tropical vegetation evergreen and deciduous mixed	½	
	(iii) Himachal Range (1600-3500 metres) Coniferous forest	½	
	(iv) Himalaya Range (3500 metres)—Alpine vegetation.	½	2
12.	(i) Equatorial region	1	
	(ii) Characteristic vegetation (any two)		
	(a) Dense forest with thick undergrowth	1	2
	(b) Hard wood mostly heavier than water		
	(c) Tall trees		

Q. No.	Expected outline answers	Value of point	Total marks
	(d) Thick canopy, twilight within the forest even during midday		
	(e) A large number of species in a smaller area.		
13.	(i) Tundra region	1	
	(ii) Marks the area of tundra region on the outline map of the world.	1	2
14.	Shading of four temperate grasslands with names on the outline map of the world and latitudinal extent.	2	2
15.	(i) Drawing of temperature curve	1	2
	(ii) Drawing of rainfall graph.	1	
16.	(i) Sub-tropical high pressure belt at about 30°S lies in this region wherein winds descend and hence blow outward		
	(ii) Direction of rain bearing wind is S.E. affecting mainly the eastern coast.		5
	(iii) Western Australian cold current flowing on the western coast		
	(iv) Australian Alps along the eastern coast.		
17.	(i) 30° to 40° latitudes in both the hemisphere.		
	(ii) Mediterranean on the western sides and China type on the eastern sides of land masses		
	(iii) Mediterranean—Winter rain and summer drought. China—Summer rain and winter drought.		5
	(iv) Both lie in the same latitude and are affected by cyclonic disturbances. They also have small annual range of temperature.		
	(v) Mediterranean is affected by westerlies while China type by trade winds.		

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recalls	Temp-grasslands	O	1	1	C
2.	Understanding	Compares	Equatorial Region	O	1	1	B
3.	Understanding	Compares	Great Plain of India	O	1	1	B
4.	Understanding	Compares	Great Plateau of India	O	1	1	B
5.	Understanding	Compares	Equatorial and Modern Region	O	1	1	B
6.	Application	Infers	Plateau Region of India	O	1	1	A
7.	Understanding	Compares	Temperate Grassland	VSA	1	1	C
8.	Understanding	Identifies	Coastal Region of India	VSA	1	1	B
9.	Application	Infers	Coastal Region of India	VSA	1	1	C
10.	Knowledge	Recognises	Himalayan Region	SA	2	3	B
11.	Understanding	Identifies	Himalayan Region	VSA	1	1	C
12.	Application	Infers	Equatorial Region	SA	2	3	B
13.	Application and skill	Draws Conclusion	Tundra Region	SA	2	3	A
14.	Skill	Draws	Temperate Grassland	SA	2	3	B
15.	Skill	Draws	Tundra Region	SA	2	3	B
16.	Knowledge	Recalls	Hot Deserts	E	5	5	A
17.	Knowledge	Recalls	Mediterranean	E	5	5	B

†*E*	*Essay*
SA	*Short Answer*
VSA	*Very Short Answer*
O	*Objective*

**A*	*Difficult*
B	*Average*
C	*Easy*

Denudation

Unit 5 : Denudation
Maximum Marks : 25

Class : X
Time : 40 Mts.

BLUEPRINT

Objective	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
Form of Question / **Content Unit**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	
Meaning and scope of denudation		2(1)						1(1)				1(1)			**4(3)**
Weathering—Factors and Type				1(1)		2(1)						1(1)			**4(3)**
Agents of weathering		2(1)						1(1)		2(1)					**5(3)**
Erosion—Factors and types				1(1)				1(1)		2(1)					**4(3)**
Agents of erosion		1(1)				2(1)		3(3)				1(1)		* 1(–)	**8(6)**
Sub Total		5(3)		2(2)		4(2)		6(6)		4(2)		3(3)		1(—)	**25(18)**
Total	7(5)				10(8)				7(5)				1(—)		**25(18)**

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
* *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No.	Marks
Short Answer (SA)	No. 7	Marks 14
Very Short Answer (VSA)	No.	Marks
Objective (O)	No. 11	Marks 11
	18	25

Scheme of Options :

Scheme of Sections :

Denudation

Class IX

M. Marks : 25
Time : 40 mts.

INSTRUCTIONS

I. All questions are cumpulsory.

II. Answers have to be written in the answer book.

III. Read the questions carefully before trying to answer.

IV. Be quick in answering the questions.

V. Do not waste time on a question when you are not sure of the answer. Pass on to the next.

VI. Questions 1 to 11 contain four alternative answers marked A, B, C, and D. Of these only one is correct. The letter indicating the correct answer should be written in bold letters against the question number in the answer book.

VII. Questions from 1 to 11 carry one mark each and from 12 to 18 two marks each.

1. Which is the example of mechanical weathering ?
   A. Oxidation
   B. Hydration
   C. Exfoliation
   D. Carbonation.

2. Which one of the following predominantly acts as the agent of chemical erosion ?
   A. Sea waves
   B. Wind
   C. Glacier
   D. Underground water.

3. Which of the following land-forms is the result of the sequential (one after the other) erosional action of water and ice ?
   A. Roche montonnes
   B. U-shaped valley
   C. Pyramidal peaks
   D. Nunatak.

4. Which one of the following roles of water is associated with chemical weathering ?
   A. Frost action
   B. Hailstorm
   C. Dilute carbon dioxide
   D. Cloud bursts in hot deserts.

5. Which is the distinguishing characteristic

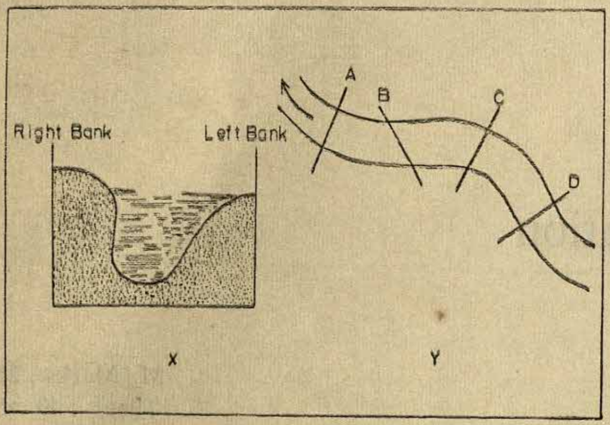
between weathering and erosion ?

A. Involvement of both mechanical and chemical processes

B. Effectiveness along the joints of rocks

C. Variation in nature and effect according to climate

D. Action through transporation of rock material.



6. The diagram X represents the cross-section of a river at a place. Which could this place be on diagram "Y" ?

7. How is a 'constructive wave' different from a 'destructive wave' ?

A. It does not break

B. Its wash runs the full course

C. Its backwash is more powerful than Swash

D. The force of its swash combine with that of backwash.

8. Which of the land forms is different from the remaining three from the standpoint of the agent of erosion responsible for it ?

A. Cirque

B. Zuegen

C. Yarding

D. Inselberg.

9. Weathering is the total effect of all the various sub-aerial (surface) processes that cooperate in bringing about the decay and disintegration of rocks.

The above definition is only partly correct. In order to make it fully correct :

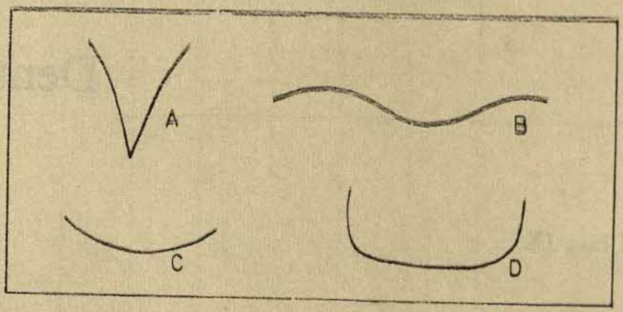
A. Delete the term "the decay"

B. Replace "all" by "some of"

C. Replace "sub-aerial processes" by "internal and external forces"

D. Add "at the site" at the end of the sentence.

10. A perennial river descending from a mountain passes through an arid tableland.



Which of the above cross valley profiles best conforms to its tableland course ?

11. Considering the factors responsible for chemical weathering which of the following places will be the least representative for it ?

A. Taiga region

B. Mediterranean region

C. Monsoon region

D. Equatorial region.

12. How do the biological factors cause weathering ?

13. Give one example to show that the term denudation is taken to include both weathering and erosion.

14. Draw a sketch of 'Mushroom Rock' and point out one characteristic which goes to prove that the formation is due to wind erosion.

15. Though the movement of waste material is not considered to be a characteristic of weathering

yet slope of land is said to be an important factor aiding weathering.
Explain this contradiction.

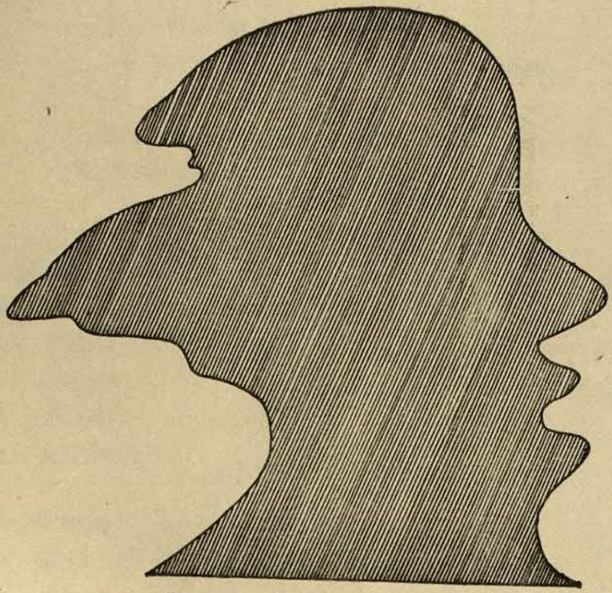
16. It is said that ice serves both as an agent of erosion and as a protection against erosion. Explain.

17. The famous Sun temple at Konark is heavily damaged and looks pock-marked or honey-combed all over. This is ascribed to its closeness to the sea and the action of salt-laden sea breezes. Will you call it predominantly the work of weathering or of erosion ? Give reasons.

18. "The river Kosi in its lower course has neither enough slope nor boulders as drilling tools and yet it indulges in the displacement of materials through erosion which may not be less than what it does in its upper course". Explain what factor or factors are responsible for this phenomenon.

Scoring Key and Marking Scheme

S.No.	1	2	3	4	5	6	7	8	9	10	11
Key	C	D	B	C	D	C	B	A	D	A	A

Q. No.	Expected outline answers (value point)	Marks allotted to value point	Total marks
12.	(i) Animals—through burrowing holes, kicking dust, etc. (ii) Trees – through root action (iii) Human beings—variously (Additional point of mention)	1 1	2
13.	Denudation means destruction and removal of surface cover of the earth. This is done through both weathering and erosion as a combined action. Any one such example as the following should be discussed : (i) Loosening of rock mantle through intermittent heating and cooling and relative case erosion of the surface by wind or water as the case may be (ii) Breaking of the rock through frost action and erosion of the surface through glacial or water action.	2	2
14.	Sketch 	1	

Q. No.	Expected outline answers (value point)	Marks allotted to value point	Marks
	Wind erosion in maximum upto a few feet above ground and again declines after a certain height, say 6 feet.	1	2
15.	For effectiveness of weathering also it is necessary that the material disintegrated or loosened should fall off, so that the surface is again fully exposed for weather action.	2	As a whole 2
16.	The moving ice with moraine as its drilling tools is a powerful agent of erosion, but a stationary layer or sheet of ice does not erode and at the same time provides a cover due to which no other agent of weathering or erosion would be able to penetrate.	2	As awhole 2
17.	Weathering ; chemical weathering caused by salt laden breezes results in decay of stops rich in lime. Hence pock-marked. The sea-breeze blows off decayed and fall material. It cannot be called an erosion, because no abrasive action by wind is indicated here.	1 1	2
18.	Lateral cutting accelerated by large volume of water further augmented by the joining of several rivers.	2	2

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of questions†	Marks allotted	Estimated time for answering	Estimated difficulty levle*
1.	Knowledge	Recognises	Mechanical weathering	O	1	½	C
2.	Knowledge	Recognises	Chemical erosion	O	1	½	C
3.	Understanding	Sees relationship	Glacial erosion	O	1	1	B
4.	Understanding	Discriminates	Chemical weathering	O	1	1	C
5.	Understanding	Compares	Weathering and erosion	O	1	1	B
6.	Understanding	Sees relationship	River erosion	O	1	1	B
7.	Understanding	Compares	Work of waves	O	1	1	B
8.	Understanding	Distinguishes	Wind and glacial erosion	O	1	1	B
9.	Application	Analysis	Weathering	O	1	1	B
10.	Application	Establishes relationship	Work of river in arid land	O	1	1	A
11.	Application	Analysis	Weathering and climate	O	1	1	A
12.	Knowledge	Recalls	Biological weathering	SA	2	2	C
13.	Knowledge	Recalls	Denudation	SA	2	2	C
14.	Knowledge and Skill	Draws and Recalls	Wind erosion	SA	2	2	C
15.	Understanding	Clarifies	Weathering and slope	SA	2	2	A
16.	Understanding	Clarifies	Glacial erosion	SA	2	2	B
17.	Application	Establishes relationhip	Differential weathering	SA	2	2	A
18.	Application	Establishes relationship	Work of river	SA	2	2	A

†*E*	*Essay*
SA	*Short Answer*
VSA	*Very Short Answer*
O	*Objective*

**A*	*Difficult*
B	*Average*
C	*Easy*

The Work of Running Water
(Erosion, Transportation, Deposition)

Unit 6 : The Work of Running Water (Erosion, Transportation, Deposition)

Class : XI

Maximum Marks : 25

Time : 40 mts.

BLUEPRINT

Objective → / Form of Question → / Content Unit ↓	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
	E	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	
River as an agent of erosion (Uppercourse)		4(2)	1(1)*			2(1)		2(2)					1(—)*		**10(6)**
River as an agent of Deposition (Lowercourse)				2(2)	3(1)*			1(1)		2(1)		1(1)	2(—)*		**9(6)**
Development of river valley and its stages								3(3)				1(1)			**4(4)**
Sub Total		4(2)	1(1)	2(2)	3(1)	2(1)		6(6)		2(1)		2(2)	3(—)		**25(16)**
Total	7(5)				11(8)				4(3)				3(—)		**25(16)**

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
** Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No. 1	Marks : 5
Short Answer (SA)	No. 4	Marks : 8
Very Short Answer (VSA)	No. 2	Marks : 2
Objective (O)	No. 10	Marks : 10
		25

Scheme of Options :

Scheme of Sections:

The Work of Running Water

(Erosion, Transportation, Deposition)

Class :XI

Time : 40 mts.
M. Marks : 25

INSTRUCTIONS

- I. All questions are compulsory.
- II. Read the question carefully before trying to answer it.
- III. Answers have to be written on the answer-book provided.
- IV. Be quick in answering the questions.
- V. Do not waste time on the question the answer of which you are not sure about ; pass on to the next.
- VI. In questions 1 to 10 there are four answers marked A, B, C, and D. Only one of these answers is correct. The letter indicating the correct answer should be written in bold letters in the answer book.
- VII. Questions 1 to 10 carry one mark each. questions 11 to 15 carry two marks each, and Question 16 carries five marks.

1. Which of the following rivers is a distributary ?
   - A. Hoogly
   - B. Surma
   - C. Mahanadi
   - D. Jordan
   - E. Zambzi.

2. Which of the following characteristics of a river stream provide *best* evidence for judging the stage in the development of a river valley ?
   - A. Longitudinal gradient
   - B. Extent of lateral cutting
   - C. Capacity for vertical erosion
   - D. Quantity of load.

3. The vertical cutting of a river is limited mostly by :
   - A. Hardness of rock
   - B. Capacity to erode
   - C. Height of bank
   - D. Sea level.

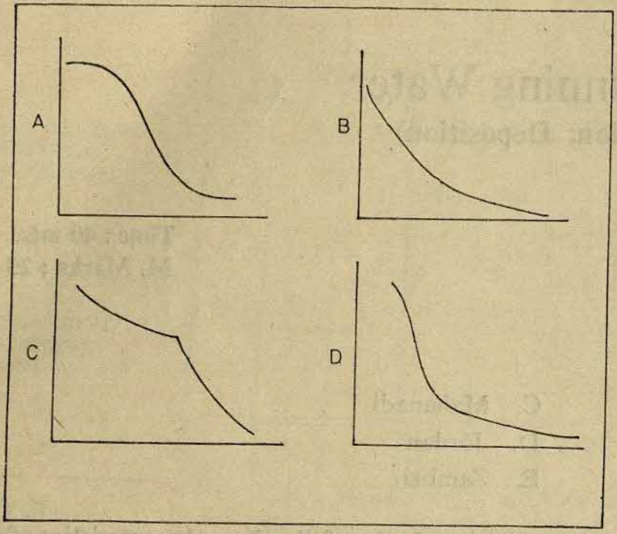
4. Which of the following drainage systems is likely to lead to the formation of deep

gorges ?

A. Antecedent
B. Radial
C. Superimposed
D. Angular.

5. A very deep valley with almost vertical sides may be found in areas which have :

A. Rainfall all the year
B. Rainfall in winter
C. Snow cover all the year
D. Sparse rainfall.



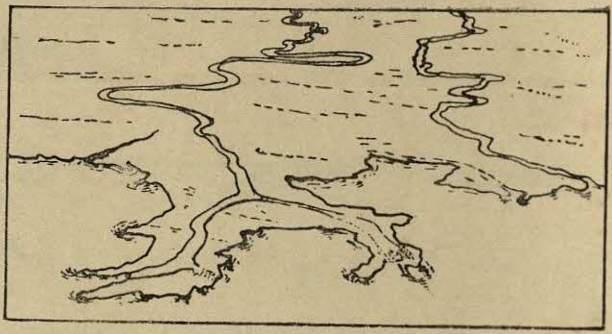
6. Which of the above is the profile of a rejuvenated river valley ?

7. Of the following land forms, which is the outcome of the erosional work of the river ?

A Flood plain
B. Peneplain
C. Delta
D. Alluvial cones.

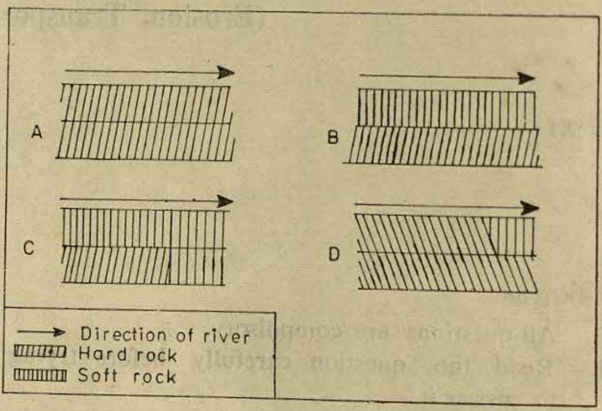
8. Of the following factors which one causes a hinderance in the development of a very vast delta by a river ?

A. A sluggish current in the river
B. Absence of tides at its mouth
C. Big lakes in its course
D. Many tributaries.



9. Which of the following forms of delta does the river in the diagram given above make ?

A. Arcuate
B. Esturine
C. Birdfoot
D. Truncated.



10. Which of the above rock structures is ideal for the formation of a waterfall ?

11. Draw a diagram to show how meanders lead to the formation of an ox-bow-lake, and explain.

12. Name four factors upon which the capacity of a river to erode depends.

13. What is a cuspate watershed ? Illustrate your answer with a figure.

14. Why are pebbles and sand found in the bed of the river ?

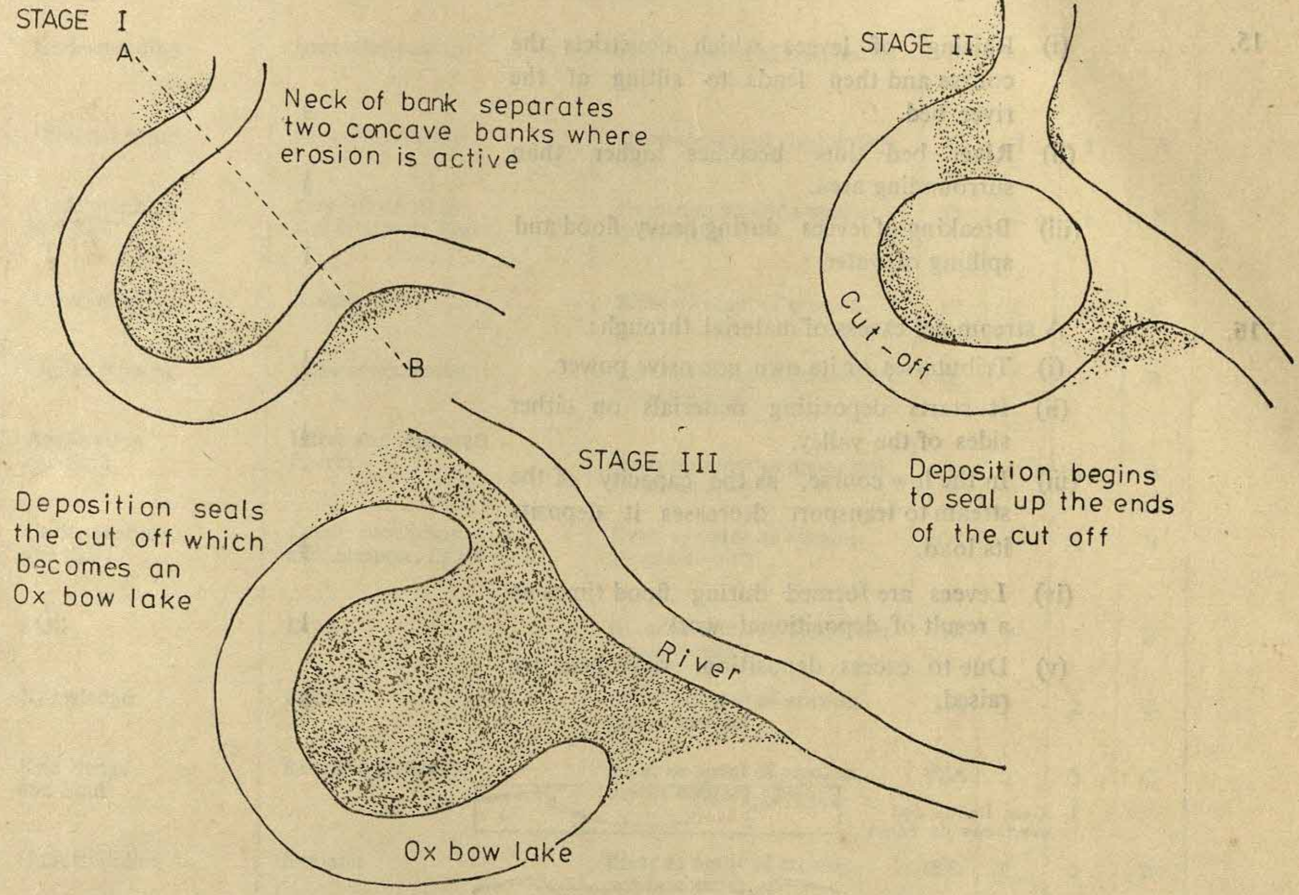
15. "Man is responsible to a considerable extent in turning Hwang-Ho into a river of sorrow."

16. Why are levees formed in the lower course of a river ? Draw a diagram to illustrate it.

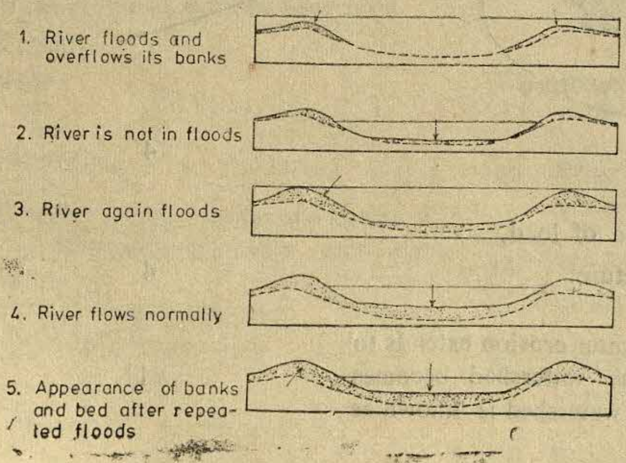
Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	7	8	9	10
Key	A	C	D	A	D	C	B	B	C	D

Q. No.	Expected outline answer	Value of points	Total marks
11.			


STAGE I
A
B
Neck of bank separates two concave banks where erosion is active
STAGE II
Cut-off
Deposition begins to seal up the ends of the cut off
STAGE III
River
Deposition seals the cut off which becomes an Ox bow lake
Ox bow lake

Q. No.	Expected outline answer	Value of points	Total marks
12.	(i) Volume of water, (ii) Velocity, (iii) Quantity and nature of load, (iv) Rock type and structure.	4 4	2 2
13.	In the concave curve water erosion extends to the watershed also, the watershed becomes sharp. Such a sharp watershed is known as cuspate watershed. Draws	1 1	2

Q. No.	Expected outline answer	Value of points	Total marks
14.	Because of the *friction* against the bed of the river and one another the angular edges of pieces of stone brought by the river from the mountainous region are rounded off and pieces of stone are changed into pebbles, and ultimately they are changed into sands. This process is termed as 'pebble grounding'.	2	2
15.	(i) Raising of levees which constricts the course and then leads to silting of the river bed.	½	
	(ii) River bed thus becomes higher than surrounding area.	½	
	(iii) Breaking of levees during heavy flood and spilling of water.	1	2
16.	A stream get excess of material through:		
	(i) Tributaries or its own corrosive power.	½	
	(ii) It starts depositing materials on either sides of the valley.	½	
	(iii) In the low course, as the capacity of the stream to transport decreases it deposits its load.	½	
	(iv) Levees are formed during flood times as a result of depositional work.	1	
	(v) Due to excess deposition, river beds are raised.	½	
	 1. River floods and overflows its banks 2. River is not in floods 3. River again floods 4. River flows normally 5. Appearance of banks and bed after repeated floods	2	5

Question-wise Analysis

S. No.	Objective	Specification	Content unit	Type of Questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recognises	River as agent of Deposition (lower course)	O	1	½	C
2.	Application	Establishes relationship	Development of river valley	O	1	1	A
3.	Understanding	Infers	River as agent of erosion (upper course)	O	1	½	B
4.	Understanding	Sees relationship	Development of river valley	O	1	½	B
5.	Understanding	Sees relationship	Development of river valley	O	1	1	A
6.	Understanding and Skill	Sees relationship and interprets figure	Development and stages of river valley	O	1	½	B
7.	Knowledge	Recalls	River as agent of erosion	O	1	½	C
8.	Understanding	Draws conclusion	River as agent of deposition (lower course)	O	1	½	B
9.	Application and Skill	Infers and interprets figures	River as agent of deposition (lower course)	O	1	1	A
10.	Understanding and Skill	Draws conclusion and interprets figure	River as agent of erosion (upper course)	O	1	1	B
11.	Skill	Draws	River as agent of deposition (lower course)	SA	2	5	B
12.	Knowledge	Recalls	River as agent of erosion (upper course)	SA	2	2	C
13.	Knowledge and Skill	Recalls and draws	River as agent of erosion (upper course)	VSA	2	3	C
14.	Understanding	Explains	River as agent of erosion (upper course)	SA	2	2	B
15.	Application	Analyses	River as agent of deposition (lower course)	SA	2	5	A
16.	Understanding and Skill	Explains and draws	River as agent of deposition (lower course)	E	3+2	15	B

†*E*	*Essay*
SA	*Short Answer*
VSA	*Very Short Answer*
O	*Objective*

**A*	***Difficult***
B	***Average***
C	***Easy***

Work of Ice (Erosion, Transportation and Deposition)

Unit 7 : Work of Ice (Erosion, Transportation and Deposition)

Maximum Marks : 30

Class : X

Time : 40 Mts.

BLUEPRINT

Objective / Form of Question / Content Unit	Knowledge				Understanding				Application				Skill		Total
	E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O	E	SA	
1. Formation and types of glaciers				1(1)				2(2)		2(1)				1(1)	6(5)
2. Occurrence of glaciers in the past and present		2(1)						1(1)				1(1)		1(1)	5(4)
3. Glacial erosion and transportation —valley glaciers		2(1)				2(1)		1(1)				1(1)		1(1)	7(5)
4. Glacial erosion and transportation —Ice sheet			1(1)	1(1)				1(1)		2(1)					5(4)
5. Glacial deposits		2(1)				2(1)						1(1)	2(1)		7(4)
Sub Total		6(3)	1(1)	2(2)		4(2)		5(5)		4(2)		3(3)	2(1)	3(3)	30(22)
Total	9(6)				9(7)				7(5)				5(4)		30(22)

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*

* *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No.	Marks
Short Answer (SA)	No. 8	Marks 16
Very Short Answer (VSA)	No. 4	Marks 4
Objective (O)	No. 10	Marks 10

Scheme of Options: Nil

Scheme of Section : Nil

Work of Ice

(Erosion, Transportation and Deposition)

Class : X

Time : 40 mts.
M. Marks : 30

INSTRUCTIONS

I. All questions are compulsory.

II. Answers to all questions are to be written in the answer-book.

III. Questions 1 to 10 contain four alternative answers marked A, B, C and D. Of these only one is correct. Put down the letter given against the correct answer in the answer-book.

IV. Questions 1 to 10 and 13 to 16 carry one mark each and 11 and 12 and 17 to 22 two marks each.

1. The limit where the accumulation and ablation of ice is balanced is known as :
   A. Ice contact line
   B. Neve line
   C. Ice-Front
   D. Snowline.

2. 'Ice-Front' can be found in the :
   A. Antarctic Region
   B. Arctic Ocean
   C. Ice-Front
   D. None of the above.

3. What is essential for the valley glaciers to be turned into piedmont glaciers ?
   A. Steep slope
   B. High snowfall
   C. Fast rate of ice waste
   D. Low altitude of snowline.

4. Which is the essential characteristic of the ice cap and *not* of ice sheet (continental glacier) ?
   A. Radial movement
   B. Longitudinal flowage
   C. Fast movement in centre
   D. Gravitational creep.

5. It is said that after the disappearance of continental ice-sheet from Europe, most of the rivers in the region got rejuvenated. What could be the reason for it ?

A. Large availability of water in river
B. Rise of sea level
C. Uplift of land
D. Morainic obstruction across river course.

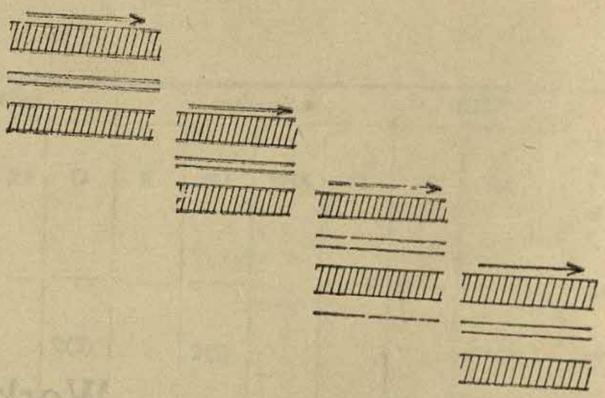
6. The erosive action of valley glaciers leads to the formation of valley troughs. Which of the following landforms is not the result of this kind of formation ?
A. Hanging valley
B. Truncated spur
C. Finger lakes
D. Nunataks.

7. Which of the following erosive features of glacial topography occurs as a result of all types of glaciers ?
A. Roches Mountanees
B. Cirque
C. Pyramidal peaks
D. Troughs.

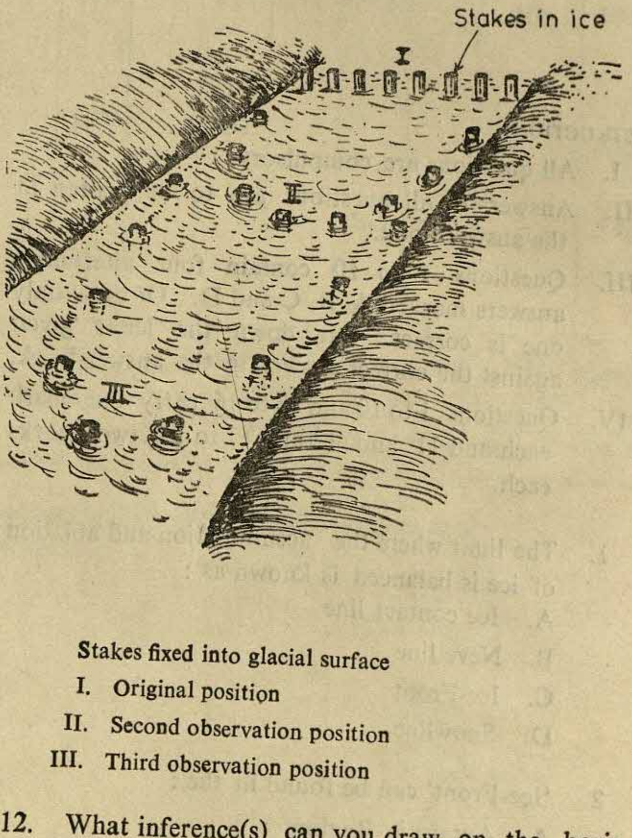
8. In the Alpine region broad-bottomed valleys a chain of alluvial deposits mixed with gravel and densely wooded are found at intervals. What does this formation taken together represent ?
A. Stages in the advance of the glacier
B. Stages in the retreat of the glacier
C. Rock steps due to bands of hard rocks
D. Land slide collapse of steep glacial trough walls.

9. Which of the following characteristics of the fiords goes best to show that their formation is, among other things, related to the work of valley glaciers ?
A. Steep wall-like slope
B. Sharp bends in branching
C. Underwater bar of debris at mouth
D. Deep inland extent.

10. It is said that no amount of effort to interpret topography of cool, temperate lands of North America and Europe would succeed without a reference to geological and climatic changes during the pleistocene period. Which of the following physical features do *not* bear any relevance to it ?
A. Great lakes
B. Fiords
C. Rhine valley
D. Baltic sea shores



11. The above diagram shows the direction of ice flowage. What kind of glacial erosional feature would result ? Name and explain its formation.



Stakes fixed into glacial surface
I. Original position
II. Second observation position
III. Third observation position

12. What inference(s) can you draw on the basis of the experiment illustrated above ? Why ?

13. On the map of the world provided mark :
    (i) An area occupied by pleistocene ice sheet in Europe
    (ii) Glacially formed peneplains in North America.

14. On the map of the world provided fill in :
    (i) An area where piedmont glaciers are met
    (ii) Boltaro glacier.

15. Draw a diagram to illustrate a 'horn'-like mountain peak.

16. Name the country which is called the 'Garden of Lakes'.

17. What is an *esker* and how is it formed ?

18. State in brief one theory for the occurrence of the ice age in the past.

19. State the basis of classifying glacial moraines. Which of them play a significant role in the erosive action of a glacier and how ?

20. Draw a diagram of the Great Lakes of North America and indicate on it the area where moraine deposits are found.

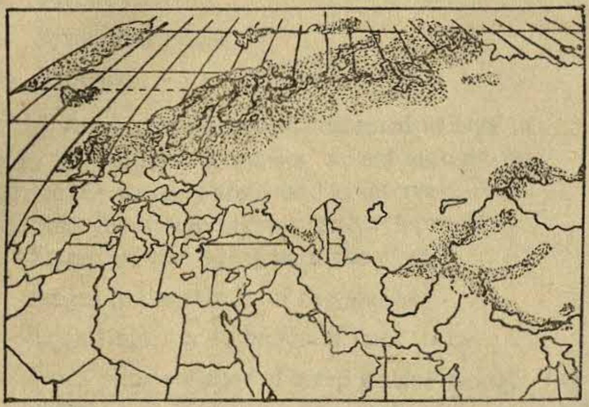
21. What is the difference between 'till' and 'stratified drift' ?

22. Why can it be said that the formation of the cirque is no less a product of weathering than of erosion ?

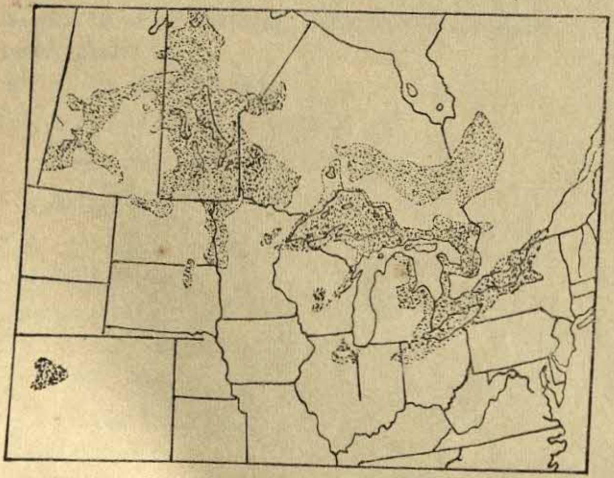
Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	7	8	9	10
Key	D	A	D	D	C	D	A	B	C	C

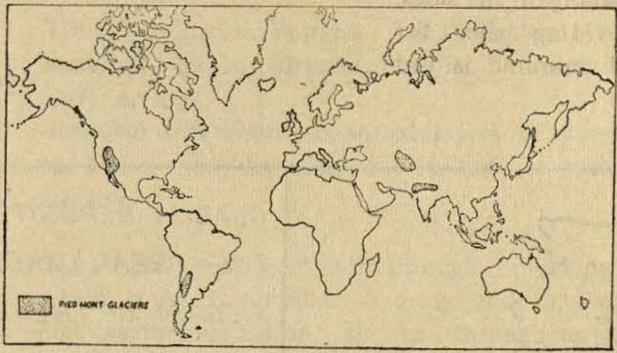
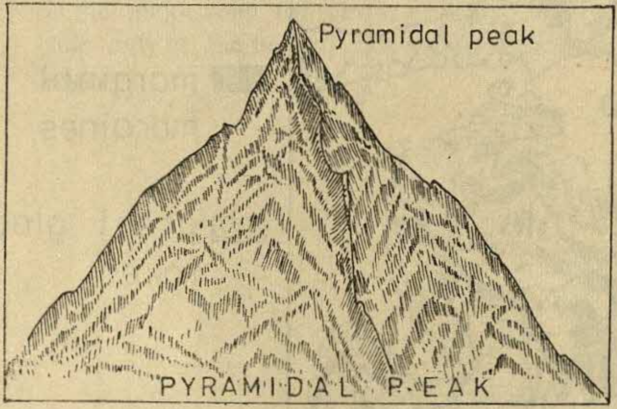
Q. No.	Expected outline answer	Value of points	Total marks
11.	Glacial stairway with or without paternoster lakes.		2
12.	(i) The sides of glaciers move more slowly than the centre.	1	
	(ii) The direction and speed of movement.	1	2
13.			



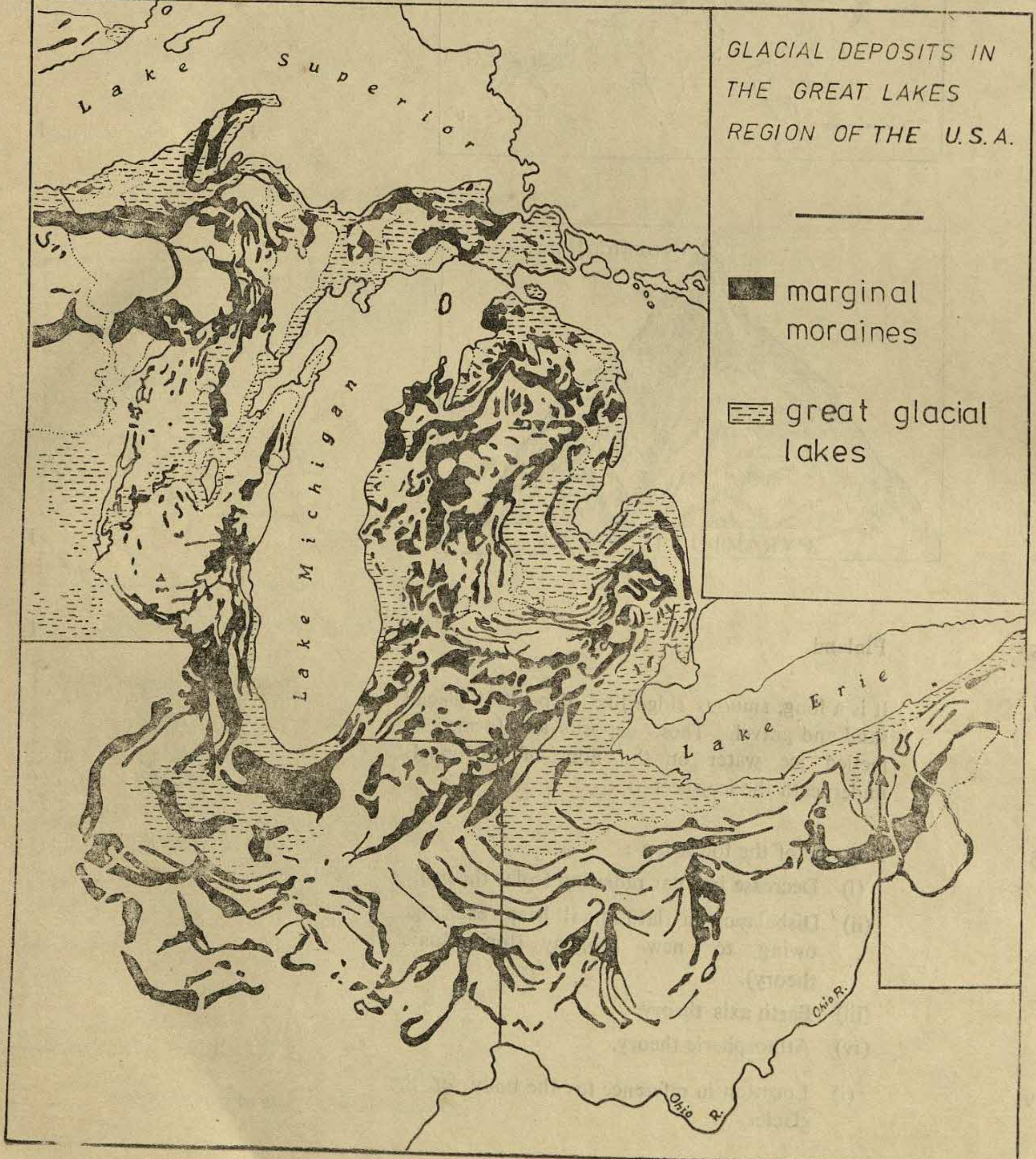
Pleistocene ice sheet covered area in Europe. 1 1



Areas occupied by glacial plain in America. 1 1

Q No.	Expected outline answer	Value of points	Total marks
14.		1	1
15.		1	1
16.	Finland	1	1
17.	It is a long, sinuous ridge like deposit of glacial sand and gravel. These deposits are formed by metled ice water on the floor of ice tunnels underneath the ice sheet.	2	2
18.	Any one of the following : (i) Decrease in solar radiation (solar theory). (ii) Disbalance in latitudinal heat exchange owing to new orogeny (topographic theory). (iii) Earth axis theory. (iv) Atmospheric theory.		2
19.	(i) Location in reference to the body of the glacier.		

Q. No.	Expected outline answer	Value of points	Total marks
	(ii) Lateral moraine for widening of the sides. Medial moraine for providing ballast for bed erosion. Terminal moraine is just depostional in nature.		2
20.			



Q. No.	Expected outline answer	Value of points	Total marks
21.	Till is a glacial moraine and includes other materials, directly deposited from ice without water action Stratified drift consists of sorted layers of gravel sand and clay deposited by melted ice water streams.		2
22.	The cirques are formed more through "plucking" which is due to alternate freezing and thawing and weathering action. Erosion through transportation of material and abrasion play minor role on the exposed side of the cirque bowl which is the major zone for cirque growth. It plays a role only at the bottom side and is slow at the edges.		2

Question-wise Analysis

S. No.	Objective	Specification	Content unit	Type of Questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recognises	Formation and types	O	1	½	C
2.	Knowledge	Recognises	Glacial Erosion and transportation	O	1	½	C
3.	Understanding	Discriminates	Formation and types of glaciers	O	1	1	B
4.	Understanding	Compares	Formation and types of glaciers	O	1	1	B
5.	Understanding	Gives reason	Occurrence	O	1	1	B
6.	Understanding	Sees relationship	Glacial erosion and transportation	O	1	½	C
7.	Understanding	Sees relationahip	Ice sheets	O	1	1	B
8.	Application	Infers	Glacial deposits	O	1	1	A
9.	Application	Infers	Glacial erosion	O	1	1	A
10.	Application	Etablishes relationship	Occurrence	O	1	1	B
11.	Application	Establishes relationship	Glacial deposits	SA	2	1	A
12.	Understanding	Sees relationship	Formation	SA	2	1	A
13.	Skill	Draws	Occurrence	VSA	1	1	A
14.	Skill	Draws	Formation	VSA	1	1	A
15.	Skill	Draws	Glacial erosion	VSA	1	1	A
16.	Knowledge	Recalls	Glacial erosion	VSA	1	1	C
17.	Knowledge	Recalls	Glacial deposits	SA	2	1	B
18.	Knowledge	Recalls	Occurrence	SA	2	1	A
19.	Knowledge	Recalls	Glacial erosion	SA	2	1	B
20.	Skill	Draws	Glacial deposits	SA	2	1	A
21.	Understanding	Compares	Glacial deposits	SA	2	1	B
22.	Understanding	Compares	Glacial erosion	SA	2	1	A

†*E* *Essay*
SA *Short Answer*
VSA *Very Short Answer*
O *Objective*

**A* *Difficult*
B *Average*
C *Easy*

Soils

Unit 8 : Soils
Maximum Marks : 30

Class : IX and X
Time : 40 Mts

BLUEPRINT

Objective	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
Form of Question / **Content Unit**	E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O	E	SA	
1. Meaning and composition of soil				2(2)											2(2)
2. Formation of soil						4(2)		1(1)							5(3)
3. Major soil type						2(1)		1(1)						2(1)	5(3)
4. Soils of India						4(2)		1(1)	5(1)						10(4)
(a) Erosion								1(1)		2(1)					3(2)
(b) Conservation		2(1)						1(1)		2(1)					5(3)
Sub Total		2(1)		2(2)		10(5)		5(5)	5(1)	4(2)				2(1)	
Total	4(3)				15(10)				9(3)				2(1)		30(17)

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
* *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No.	Marks :
Short Answer (SA)	No. 1	Marks : 5
Very Short Answer (VSA)	No. 9	Marks : 18
Objective (O)	No. 7	Marks : 7
	17	30

Scheme of Options :

Scheme of Sections :

Soils

Class : IX and X

M. Marks : 30
Time : 40 Minutes

INSTRUCTIONS

I. All questions are compulsory.

II. Answer questions 1 to 7 on the sheet itself and questions 8 to 17 on the separate answer book to be provided.

III. In questions 1 to 7 there are four probable answers (marked A, B, C and D). Only one of them is correct which is to be written in bold capital letters in the answer book.

IV. Questions 1 to 7 carry one mark each and questions 8 to 16 carry two marks each. Question 17 carries 5 marks.

1. Leaching of the soil means :
   A. Water-logging in the soil
   B. Washing of minerals down from upper layer
   C. Decaying of humus contents
   D. Removal of living organism.

2. Which of the given factors makes gully erosion different from sheet erosion ?
   A. Formation of relief
   B. Steepness of slope
   C. Depth of erosion
   D. Extent of vegetation cover.

3. Which of the following steps is least suitable for effective checking of soil erosion in the Chambal valley ravines ?
   A. Dams for flood control
   B. Extensive tree plantation on valley slopes
   C. Contour ploughing of arable land
   D. Terracing of valley slopes

4. In cold, wet regions leaching helps to produce a grey soil known as :
   A. Pedalfers
   B. Pedocals
   C. Podzol
   D. Laterites.

5. Peat soils are formed where :
   A. Vegetation decays quickly
   B. Drainage is very poor

C. No water-logging occurs
D. Humus is slow to form.

6. Which of the following steps should not be recommended as a measure to conserve soil in the arid lands of Rajasthan ?
   A. Early summer ploughing
   B. Planting of wind screens
   C. Fencing to stop cattle grazing
   D. Late cutting of wheat stalks.

7. Soils which are rich in calcium are known as :
   A. Podsols
   B. Pedalfers
   C. Pedocals
   D. Laterites.

8. Why is it that disintegration of rocks is not the only factor responsible for soil formation ?

9. How do the causes of formation of the Black Cotton Soil of India make it different from the loess deposits of North China ?

10. List the physical factors which cause ravines in the Chambal-Yamuna tract which are not found in the Yamuna-Ganga tract.

11. Classify the soils of Peninsular India on the basis of their formation and give three characteristics of any one type with regard to its composition.

12. "Soil erosion results often from the misuse of the land." Explain this phenomenon and give two examples to illustrate.

13. How is the composition of the three horizons of the laterite soils found in West Maharashtra different from those of the Black Cotton Soil of the region ?

14. Gully erosion is often seen to assume a formidable form in the semi-arid lands but not so sheet erosion.
    How far is this inference correct ? Give two examples in support of your views. Which one commonly occurs in India ?

15. What steps are taken to preserve the quality of soil in prairie lands ?

16. On the outline map of the world mark the following :
    (a) Soil regions of the temperate grasslands of the U.S S.R. and the U.S.A.
    (b) Black soil areas in India, the U.S.S.R and Argentina.

17. Travelling from Ahmedabad to Porbandar one comes across areas of land where soils and crop pattern are very much similar to that found in the area between Bombay and Nagpur. Cotton continues to be picked upto January, though the fields remain unwatered after the last monsoon shower has been received. Some of the fields which have been tilled present a sight, which to a resident of the Gangetic plain may be frightening—large, upturned blocks of soil and cracks developing in the area not yet ploughed.
    (a) Why does the soil type of the Saurashtra region which is far removed from the Deccan region depict a similarity to it ?
    (b) What soil characteristic enables the continuous growth of the cotton plant in this region in spite of nearly three months of dry weather ?
    (c) Why do the ploughed and unploughed fields in the month of January present a peculiar sight to a resident of the Gangetic plains ?
    (d) What are the physical and chemical characteristics of the soil found in the Bombay to Nagpur tract ?
    (e) What physical and chemical properties of soil explain the difference in the soil of the Deccan region and the Gangetic plain ?

Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	7
Key	B	B	A	C	B	A	C

Q. No.	Expected outline answer	Value of points	Marks
8.	Soil in composed not only of rock particles but humus water, air and living organisms. Other main processes in the formation are chemical and biotic.	1 1	2
9.	Black Cotton soil of India : Sedentary in origin and found at the place of its origin due to disintegration of rock. Loess of China : Transported soil transported by wind.	1 1	2
10.	(i) Chambal-Jamuna belt has Semi-arid climate. (ii) Soil sandy loam, scandy vegetation occurs.	1 1	2
11.	*Characteristics* Black cotton soil (i) Fine silt (ii) Basaltic base (iii) Poor in organic matter. Red Soil (i) Loamy in low lands, gravel in uplands (ii) Crystalline rocks (iii) Deficient in nitrogenous and organic matter. Alluvial (i) Fine silt by river deposition (ii) Calcareous (iii) Rich in humus Laterite (i) Leached soils (ii) Residual soil (iii) Has modules of iron oxide.	½ mark each	2
12.	Overgrazing, deforestation, unorganised pastures, agriculture, flooding,	1	

Q. No.	Expected outline answer	Value of points	Marks
	Semi-arid Rajasthan in India. S. W. U. S. S. R.	1	2
13.	Laterite : (i) Horizon : Little organic matter iron hydroxide. (ii) Horizon : mineral solution from (i) horizon. (iii) Horizon : Sub-soil rock pebbles.	1	
	Black cotton : (i) Horizon : organic matter and minerals calcium. (ii) Horizon : rich in minerals. (iii) Horizon : sub-soil lime.	1	2
14.	Sudden rain rushes down a slope cutting deep grooves into the land.	1	
	River floods carve ravines in loose soil in semi-arid region and deforested areas.		2
	Wind is a powerful agent in semi-arid regions like Chambal ravines.		
15.	(i) Sowing before snowfall	1	2
	(ii) Contour and strip cropping	1	
	(iii) Crop rotation. (Any two).		
16.	On the outline map of the world locates :		
	(a) Temperate desert soil in the U.S.S R. and the U.S.A.	1	2
	(b) Tropical Black Soil area in India, the U.S.S.R. and Argentina.	1	
17.	(a) Having the same soil being both on lava outcrops as a part of the Deccan lava outflows.	1	
	(b) Retains moisture.	1	
	(c) Develops deep cracks and upturned blocks of soil.	1	
	(d) Rich in calcium, when wet becomes very sticky, deficient in phospharic acid nitrogen and	1	5
	(e) Gangetic plain soil is alluvial type soil, Deccan soil derived from volcanic rocks. Rocks Sedimentary in the Gangetic plain and igneous in the Deccan region.	1	

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recalls	Composition of the soil	O	1	1	C
2.	Understanding	Distinguishes	Management of soil erosion	O	1	1	B
3.	Understanding	Discriminates	Management of soil conservation	O	1	1	A
4.	Knowledge	Recognises	Composition of the soil	O	1	1	C
5.	Understanding	Establishes relationship	Formation of the soil	O	1	1	B
6.	Understanding	Cause-effect	Soils of India	O	1	1	B
7.	Understanding	Discriminates	Major soil types	O	1	1	B
8.	Understanding	Gives reasons	Formation of soil	SA	2	2	B
9.	Understanding	Distinguishes	Major soil types	SA	2	2	B
10.	Understanding	Gives reasons	Soils of India	SA	2	2	B
11.	Understanding	Classification	Soils of India	SA	2	2	B
12.	Application	Infers with reasons	Management of soil erosion	SA	2	2	A
13.	Understanding	Soil profile types	Formation of the soil	SA	2	2	B
14.	Application	Applications	Management of soil erosion	SA	2	2	B
15.	Knowledge	Recalls	Major soil types	SA	2	2	B
16.	Skill	Marks the area	Major soil types	SA	2	2	B
17.	Application	Analyses & gives reasons	Soils of India	E	5	15	A

†*E*	*Essay*
SA	*Short Answer*
VSA	*Very Short Answer*
O	*Objective*

**A*	*Difficult*
B	*Average*
C	*Easy*

Hydrosphere

Unit 9 : Hydrosphere—Physical Characteristics **Class : X**
Maximum Marks : 24 **Time : 30 mts.**

BLUEPRINT

Objective	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
Content Unit / **Form of Question**	E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O	E	SA	
1. Oceanic Relief				1(1)		2(1)		1(1)				1(1)		2(1)	7(5)
2. Oceanic Deposits and Deep Sea Organisms				1(1)		2(1)		1(1)						2(1)	6(4)
3. Ocean Water Salinity and Temperature		2(1)				2(1)		1(1)				1(1)			6(4)
4. Movement of Ocean Waters Vertical and Horizontal		2(1)						1(1)						2(1)	5(3)
Sub Total		4(2)		2(2)		6(3)		4(4)				2(2)		6(3)	
Total	6(4)				10(7)				2(2)				6(3)		24(16)

Notes: *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
** Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No.	Marks :
Short Answer (SA)	No. 8	Marks : 16
Very Short Answer (VSA)	No.	Marks :
Objective (O)	No. 8	Marks : 8
	16	24

Scheme of Options : Nil

Scheme of Sections : Nil

Hydrosphere—Physical Characteristics

Class : X

M. Marks : 25
Time : 30 mts.

INSTRUCTIONS

I. All questions are compulsory.

II. Read the question carefully before trying to answer it.

III. Answers have to be written on the answer book provided.

IV. In questions 1 to 8 there are four probable answers—A, B, C and D. Write the letter indicating the correct answer in bold letters against the number of the question in the answer book.

V. Do not waste time on the question the answer of which you are not sure of. Pass on to the next.

VI. Questions 1 to 8 and 15 to 17 carry one mark each, questions from 9 to 14 carry 2 marks each.

1. Which of the following oceanic oozes is associated with warm temperatures of oceanic water ?

   A. Radiolarian
   B. Diatom
   C. Pteroped
   D. Globigerina.

2. Which of the following seas have the least extent of continental shelf ?

   A. North sea
   B. Arabian sea
   C. South China sea
   D. Caribbean sea.

3. In the tropical zone the surface temperature of oceanic water is generally found to be less than 25°C along the western margins of the continents owing to the influence of the offshore winds. Which of the following coasts provides on exception to it ?

   A. African coast
   B. Australian coast
   C. New Zealand coast
   D. Maxican coast.

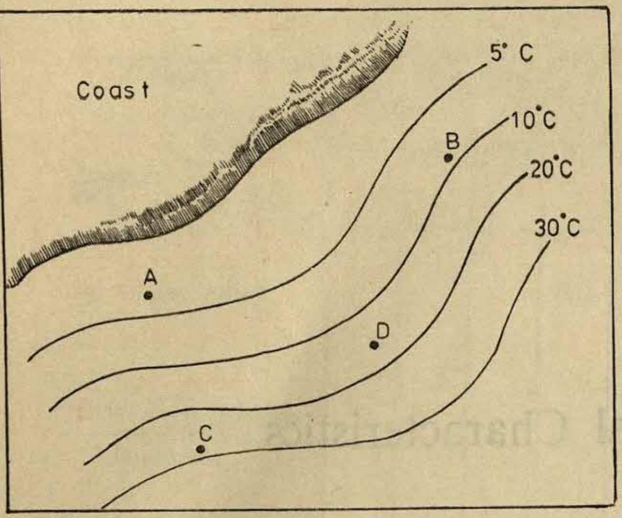
4. At which of the following locations would the speed of movement of surface water be fastest ?

   A. 40°N 40°W
   B. 20°N 40°W

C. 20°S 40°W

D. 20°N 20°S.

5.



Which of the places marked on the above diagram is the least favourable for the growth of barrier reef.

6. An 'abyssal plan' differs from the Continental shelf in so far as the former has a :

   A. Higher degree of slope
   B. Thicker deposits of oozes
   C. Base of basic rocks
   D. Fewer physical features.

7. A group of oceanographers travelled from Beunos Aires (South America) to Marseilles (France) testing sea water for salinity. In which of the following regions would it have been the highest.

   A. 0°
   B. 0°—10°N
   C. 10°N—20°N
   D. 20°N—30°N.

8. Of the oceans of the world the Indian Ocean is sometimes referred to as 'half an ocean'. On the basis of which of the following characteristics is the Indian Ocean referred to as half an ocean.

   A. Third in size among the five
   B. Three sides bounded by land
   C. Surrounded by undeveloped countries
   D. Asymmetrical with little northward expansion.

9. State one important hypothesis usually advanced to explain the salinity of ocean water and list the important compounds of salts found in it.

10. What was the age-old method of studying the direction and speed of the movement of surface water of oceans.

11. Why are the deepest oceanic trenches located close to the regions associated with recent mountain building activities (orogenetic movement) ?

12. Why are most coral islands in the open sea found on volcanic cones ?

13. The western coast of Scandinavia is more affected by the warm north Atlantic Drift than its eastern coast. What effect does this have on the availability of port facilities on both these coasts ?

14. The level of salinity rises beyond 1000% in the temperate latitudes whereas it either declines or remains near constant on the tropical latitudes. Explain how this affects the sinking and upwelling of oceanic water.

15. On the outline map of the world provided mark :

   (i) Mid Atlantic Ridge.
   (ii) An area in the Indian ocean where red clay deposits are predominant.
   (iii) Great Barrier reef.
   (iv) Coasts of submergence and emergence.
   (v) Warm and cold currents of north Atlantic.
   (vi) Ocean gyre in the north Atlantic.

Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	7	8
Key	A	B	D	D	B	D	D	B

Q. No.	Expected outline answer	Value of points	Total Marks
9.	(i) Hypothesis salt brought by rivers during geological ages together with salt of the sea bed.	1	
	(ii) Sodium cloride, salt of magnesium potassium and calcium.	1	2
10	Corked and labelled bottles dropped at various points. Picked up and place plotted on map. Inferences drawn about direction of speed.	2	2
11.	Creation of a foredeep on account of down-folding in the ocean floor.	2	2
12.	Corals cannot live and grow beyond a certain depth (usually 60M). Hence the extant under-sea volcanic cones and island provide them with base.	2	2
13.	Western coast remains open throughout the year and the eastern coast is frozen in winter. Therefore west coast provides port facilities all the year round, the east only in summer.	2	2
14.	In the higher alitudes the saline warm water sinks below the saline cold water, on the contrary in tropical zone the saline surface water which has a higher salinity is swept away by winds and cold saline water upwells. This sets up a counter deep, water movement in the reverse direction equalising the level of salinity.	2	2
15.	(i)–(vi) Locates on given map of the world.	1 mark each	6

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Understanding	Interprets	Oceanic relief	O	1	1	B
2.	Understanding	Identifies	Oceanic deposits and organisms	O	1	1	B
3.	Understanding	Interprets	Oceanic water salinity and temperature	O	1	1	B
4.	Understanding	Identifies	Movement of oceanic waters—vertical and horizontal	O	1	1	A
5.	Application	Analyses	Oceanic relief	O	1	1	B
6.	Application	Infers	Oceanic water salinity and temperature	O	1	1	C
7.	Knowledge	Recalls	Oceanic relief	O	1	1	C
8.	Knowledge	Recalls	Oceanic deposits and organisms	SA	1	1	C
9.	Knowledge	Recalls	Oceanic water salinity and temperature	SA	2	2	C
10.	Knowledge	Recalls	Movements of ocean water vertical and horizontal	SA	2	2	B
11.	Understanding	Identifies relationship	Oceanic relief	SA	2	2	B
12.	Understanding	Identifies relationship	Oceanic deposits deep sea organisms	SA	2	2	B
13.	Understanding	Interprets	Oceanic water salinity and temperature	SA	2	2	B
14.	Skill	Locates	Oceanic relief	SA	2	2	C
15.	Skill	Locates	Oceanic deposits deep sea organisms	SA	2	2	C
16.	Skill	Locates	Movement of oceanic water vertical and horizontal	SA	2	2	C

†*E* *Essay*
SA *Short Answer*
VSA *Very Short Answer*
O *Objective*

**A* *Difficult*
B *Average*
C *Easy*

Ocean Currents

Unit 10 : Ocean Currents
Maximum Marks : 25

Class : X
Time : 40 Mts.

BLUEPRINT

Objective	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
Content Unit / Form of Question	E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O	E	SA	
1. Nature and Types		2(1)	1(1)			2(1)									5(4)
2. Causes		2(1)			4(1)*		1(1)	1(1)						1(–*)	9(4)
3. Distribution			1(1)			2(1)						1(1)		2(1)	6(4)
4. Effects				1(1)			1(1)	1(1)		2(1)					5(4)
Sub Total		4(2)	2(2)	1(1)	4(1)	4(2)	2(2)	2(2)		2(1)		1(1)		3(1)	
Total	7(5)				12(7)				3(2)				3(1)		25(16)

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
** Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No. 1	Marks : 5
Short Answer (SA)	No. 5	Marks : 10
Very Short Answer (VSA)	No. 3	Marks : 3
Objective (O)	No. 7	Marks : 7
	16	25

Scheme of Options :

Scheme of Sections :

Ocean Currents

Class : X

M. Marks : 25
Time : 40 Mts.

INSTRUCTIONS

I. All questions are compulsory.

II. Read the question carefully before trying to answer it.

III. Answers have to be written on the answer-book provided.

IV. Be quick in answering the questions.

V. Do not waste time on the question about the answer of which you are not sure. Pass on to the next.

VI. In questions 1 to 7, there are five answers marked A, B, C, D and E. Only one of these answers is correct. The letter indicating the correct answer should be written in bold letters against the question number in the answer book.

VII. Questions 1 to 7 carry one mark each, questions 8 to 15 carry two marks each, and question 16 carries five marks.

1. Which ocean current keeps some parts of the coast in the Arctic ice free ?

   A. East Greenland
   B. Kuro Shio
   C. North Atlantic Drift
   D. Kurile
   E. Californian.

2. Which of the following is a Counter Equatorial Current ?

   A. Brazil current
   B. Benguela current
   C. Guinea current
   D. Canaries current
   E. Mozambique current.

3. Which one of the following currents is different from the remaining four from the point of causation ?

   A. Labrador current
   B. East Greenland current
   C. Falkland current
   D. Oyashio current
   E. California current.

4. Which is the main reason for the flow of warm water current from the North American shores to the shores of Western Europe ?
   - A. Deflection of ocean waters
   - B. Piling up of warm water
   - C. Prevailing westerly winds
   - D. Configuration of the land masses
   - E. Differences in salinity.

5. The comparison of temperature conditions at which of the following pairs of stations best illustrates the influence of ocean currents on climate ?
   - A. New York— San Fransisco
   - B. Valparaiso—Buenos Aires
   - C. London—Vladivostok
   - D. Perth—Sydney
   - E. Vancouver—Chicago.

6. Which one of the following provides a basis for explaining the eastward flow of the Guinea Current ?
   - A. West-East rotation of the earth
   - B. Easterly direction of the prevailing winds
   - C. Piling up of water due to converging equatorial current
   - D. Lower salinity of ocean water along the Guinea Coast
   - E. Crossing of south equatorial current to the north of equator.

7. Along which coast does the direction of ocean current favour northward movement of ships in summer and southward movement in winter.
   - A. Coromandal Coast
   - B. Konkan-Malabar Coast
   - C. East African Coast
   - D. West Australian Coast
   - E. East Australian Coast.

8. Name two cold currents of the South Atlantic Ocean.

9. Name the ocean current which is divided into North and South moving branches.

10. Why does the warm water of Gulf Stream slides below the cold water of the labrador Current off the Newfoundland coast.

11. Give any four factors which determine the direction of ocean current.

12. State the average speed of ocean current in tropical and temperate oceanic waters and give the concept of the cause of difference between their speeds.

13. Give two points of difference in the distribution of ocean currents between the Indian ocean north of the equator and south of the equator.

14. Columbus is said to have followed a southerly route when sailing from Spain to the Caribbean sea and a more northerly route on his return voyage. State the ocean currents which helped him on both these occasions.

15. Draw a schematic diagram to show the distribution of currents in the North Atlantic Ocean, which form the Sargasso Sea.

16. Explain how prevailing winds cause surface circulation of the oceanic water. Draw a diagram of Pacific ocean currents to illustrate it and name the currents shown.

OR

Explain how difference in salinity cause oceanic circulation of surface water. Give at least four examples. Draw diagrams to illustrate one of these examples.

Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	7
Key	C	C	E	C	D	C	B

Q. No.	**Expected outline answers**	**Value of point**	**Total**
8.	Falkland, Benguela, and Westwind drift (any two)	½ ½	1
9.	—South Equatorial current	½	
	—density	½	1
10.	The high salinity of the Gulf Stream waters and the low salinity and density of the Labrador current	1	1
11.	Any four		
	(i) Prevailing winds	½	
	(ii) Configuration of the Coast	½	
	(iii) Difference of Salinity	½	
	(iv) Variation of Temperature	½	
	(v) Rotation of the Earth.	½ × 4	2
12.	(i) 8 to 10 knots per day in Temperate region	½	
	10 to 15 knots per day in Tropical region	½	
	(ii) Reasons of difference:		
	(a) More forceful convergence	½	
	(b) Lighter density of water	½	2
13.	(i) Seasonal change of current in northern part of Indian ocean but not such seasonal change of current in southern part of Indian ocean.	1	2
	(ii) Absence of cold current in northern part.	1	
14.	Canaries current in advance voyage and the Gulf Stream in return voyage.	1	2
15.	Drawing : (i) Direction	1	
	(ii) Position	1	2

Q. No.	Expected outline answers	Value of point	Total
16.	(i) Subtropical Western coast of the continents e.g. West Africa, California, Peru-Chile, S.W. Africa, West Australia.	1	
	(ii) Off-shore wind blow off surface water. Cool water from below wells up. Blown off water joins equatorial current.	2	5
	(iii) Diagrams	2	
	OR		
	(i) Higher the salinity higher the density—more saline water sinks—to replace it, water with higher salinity moves over it.	1	
	(ii) Colder water has lighter salinity melting of snow-capacity to dissolve less salt. Such water creeps over denser water.	1	5
	(iii) Examples : Current scress Gibraltar, East Greenland current, Labrador current, Oyashio current, Falkland current, Bering current, I	1	
	(iv) Diagrams	2	

Question-wise Analysis

S. No.	Objective	Specification	Content unit	Type of Questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recalls	Nature and type of ocean currents	O	1	1	C
2.	Knowledge	Recognises	Effect of ocean currents	O	1	1	C
3.	Understanding	Discriminates	Nature and types of ocean currents	O	1	1	B
4.	Understanding	Identifies relationship	Causes of ocean currents	O	1	1	B
5.	Understanding	Compares	Effects of ocean currents	O	1	1	A
6.	Application	Establishes relationship	Causes of ocean currents	O	1	1	A
7.	Application	Infers	Distribution pattern of ocean currents	O	1	1	C
8.	Knowledge	Recalls	Nature of ocean currents	VSA	1	1½	C
9.	Knowledge	Recalls	Nature of ocean currents	VSA	1	1½	B
10.	Understanding	Identifies relationship	Effect of ocean currents	VSA	1	1½	C
11.	Knowledge	Recalls	Causes of ocean currents	SA	2	1½	C
12.	Understanding	Identifies and compares	Nature of ocean	SA	2	2	B
13.	Understanding	Discriminates	Nature of ocean currents	SA	2	2	B
14.	Application	Infers	Effects of ocean currents	SA	2	2	B
15.	Skill	Draws	Distribution	SA	2	2	C
16.	Understanding and Skill	Draws and identifies	Causes	E	5	16	C

†*E*	*Essay*
SA	*Short Answer*
VSA	*Very Short Answer*
O	*Objective*

**A*	*Difficult*
B	*Average*
C	*Easy*

Life in Some Natural Regions

Unit 11 : Life in Some Natural Regions

Class : X
Time : 40 Mts.

Maximum Marks : 30

BLUEPRINT

Objective → Form of Question / Content Unit ↓	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
	E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O		SA	
1. Equatorial region				1(1)	4(1)		1(1)	1(1)				1(1)			**8(5)**
2. Tropical desert	4(1)					2(1)		1(1)			1(1)			1(1)	**9(5)**
3. Middle altitude grassland			1(1)	1(1)		2(1)		1(1)		2(1)					**7(5)**
4. Polar Tundra Region		2(1)		1(1)			1(1)	1(1)				1(1)			**6(5)**
Sub Total	4(1)	2(1)	1(1)	3(3)	4(1)	4(2)	2(2)	4(4)		2(1)	1(1)	2(2)		1(1)	**30(20)**
Total	10(6)				14(9)				5(4)				1(1)		**30(20)**

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
* *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No. 2	Marks : 8
Short Answer (SA)	No. 4	Marks : 9
Very Short Answer (VSA)	No. 5	Marks : 4
Objective (O)	No. 9	Marks : 9
	20	30

Scheme of Options:

Scheme of Sections:

Life in Some Natural Regions

Class : X

M. Marks : 30
Time : 40 mts.

INSTRUCTIONS

I. All questions are compulsory.

II. Read the questions carefully before trying to answers them.

III. Answers have to be written on the answer book.

IV. Be quick in answering the questions.

V. Do not waste time on a question when you are not sure of the answer. Pass on to the next.

VI. In questions 1 to 9 there are four proposed answer marked A, B, C and D. Only one of these answers is correct. The letter indicating the correct answer should be written in bold letters against the question number in the answer book.

VII. Questions 1 to 13 carry one mark each. Questions 14 to 17 carry two marks each. Questions 19 to 20 carry four marks each.

1. Which of the following forms of animal-rearing is practised in tribal societies ?
   - A. Dairy farming
   - B. Pastoral nomadism
   - C. Cattle herding
   - D. Livestock ranching.

2. During the change of season from short summer to long winter the chief activity of Eskimos is :
   - A. Farming
   - B. Fishing
   - C. Lumbering
   - D. Hunting.

3. Mining regions, as well as farms and ranches, need city-made products. And the cities need minerals from the mining regions just as they need food products from farms and ranches.

T—The statement given can be inferred as true.

F—The statement can be inferred as untrue.

N—No inference can be drawn as to the truth/untruth of the statement.

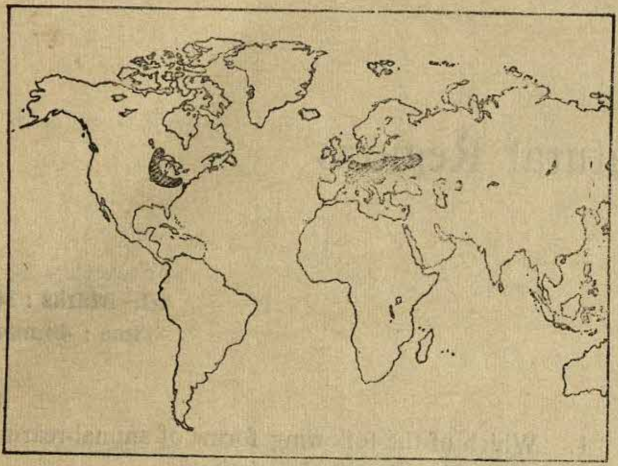
Statements

3.1 Cities can exist and grow regardless of mining regions and farms.

3.2 Farms and ranches alone cannot support mining regions.

3.3 Farms and mining regions exist only to supply the cities' needs.

3.4 Prosperity of a city is more dependent on a mining region.



4. The shaded areas in the map given above are regions of :
   - A. Dairy farming
   - B. Extensive grain farming
   - C. Plantation
   - D. Intensive agriculture.

5. Plantation agriculture in the tropics is characterised by :

5.1 Only one or two crops in a plantation.

5.2 Small scale operation.

5.3 Farm ownership by local population.

   - A. Statement 5.1, 5.2 and 5.3 are correct
   - B. Statement 5.1, 5.2 and correct
   - C. Statement 5.2, 5,3 are correct
   - D. Statement 5.1 is correct
   - E. Statement 5.1 is correct.

6. Which of the characteristics of farming of the Grasslands of U. S. A. and U. S. S. R. given below is unique of only the U. S. S. R. ?
   - A. Mechanisation
   - B. Collective farming
   - C. Large farms
   - D. Few farmers.

7. With the depletion of wild animals the Eskimos are in the process of changing their way of life. Which of the following has resulted in such a situation ?
   - A. Mining
   - B. Lumbering
   - C. Fishing
   - D. Agriculture.

8. If the forests were cleared and skill made available in Zaire which activity would be the natives most likely follow ?
   - A. Cattle rearing and meat industry.
   - B. Primitive agriculture on small farms.
   - C. Plantation agriculture on commercial scale.
   - D. Cultivation of crops for subsistence.

9. It is said the larger the area more opportunities there are to develop. For which of the following regions does this statement not hold true.
   - A. Monsoon region
   - B. Savannah grassland
   - C. Tundra region
   - D. Equatorial region.

10. For what purpose are the farm products or the corn belt of the U. S. A. mainly utilised.

11. Though the Nile Valley has a physical environment similar to that of Libya the former is much more advanced than the latter. Mention one very important economic activity which is responsible for this.

12. What steps has the Soviet Union taken to conserve the most important animal and the most important trade of their Tundra lands ?

13. In Israel the fields are ploughed, water not allowed to either evaporate or run-off, trees planted all around fields and short duration crops are grown. State why such agriculture practices are followed.

14. Describe the changes brought in the life of Eskimos in the changing situation of their habitat.

15. What measures have been taken by the Fellahin to overcome the physical constraints in the region and develop an economy different from that of their neighbours, the Bedouins.

16. With his advanced technical skill Man has made excellent adjustments with the conditions of vast fertile lands and temperate climate of Mid-latitude Grasslands. How is this adjustment reflected in the human activities of this region ?

17. In un-utilised area of Steppe if a farmer is provided with fertile land, irrigation facilities, cattle and modern implements, state what steps could result in the best use of these facilities.

18. List the characteristics of terrain, climate and vegetation in the Sahara and state the adaptations made by the Bedouins in such an environment.

19. Two areas falling under the same natural region and having similar physical environment may have different human activities. Elucidate the statement with reference to Malaysia and the Congo basin.

20. In the world map given mark the areas of subsistence agriculture in the tropical deserts.

Scoring Key and Marking Scheme

Q. No.	1	2	3.1	3.2	3.3	3.4	4	5	6	7	8	9
Key	C	D	F	F	T	N	C	D	B	A	C	C

Q. No.	Expected outline answers	Value of point	Total
10.	As animal feed.	1	1
11.	Subsistence commercial agriculture in the Nile Valley.	1	1
12.	Reindeer farms	½	
	fur farms	½	1
13.	For conserving water	1	1
14.	Lead a settled life and are engaged in fur trade, mining and tertiary services.	2	2
15.	Lack of water overcome by irrigation canals, and settled agriculture is possible.	2	2
16.	Extensive agriculture mixed	1	
	farming	1	2
17.	Practises mixed farming,	½	
	Double cropping,	½	
	Crop rotation,	½	
	Storage of grain.	½	2
18.	*Environment*		
	(i) Sandy and rocky terrain		
	(ii) Low level of underground water table		
	(iii) Scanty and scattered rainfall		
	(iv) High temperature and strong winds		
	(v) Sparse xerophytic vegetation (any other relevant fact).	2	
	Economic Activities of Bedouins		
	(i) Rearing of animals	½	
	(ii) Seasonal migration in search of pastures for animals	½	
	(iii) High degree of self sufficiency	½	
	(iv) Exchange of animal products for other goods of daily need.	½	2

Q. No.	Expected outline answer		Value of points	Total
19.	*Environmental Conditions*			
	Hot and humid climate all year		2	
	Abundance of Vegetation			
	Many rivers and low marshy lands			
	Economic activities			
	Congo Basin	*Malaysia*		
	(i) Primitive communities	Sedentary communities		
	(ii) Nomadic life	agriculture plantations	2	
	(iii) Primitive means of communication	Well-developed road and rail network		
	(iv) Natural resources not utilised	Natural resources utilised		4
20.	Locates on map		4	4

Question-wise Analysis

S. No.	Objective	Specification	Content unit	Type of Question s†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recalls	Equatorial Region	O	1	1	C
2.	Knowledge	Recognises	Middle altitude grassland	O	1	1	C
3.	Knowledge	Recalls	Polar Tundra	O	1	1	C
4.	Understanding	Identifies relationship	Equatorial Region	O	1	1	B
5.	Understanding	Discriminates	Tropical Desert	O	1	1	B
6.	Understanding	Discriminates	Mid latitude grassland	O	1	1	B
7.	Understanding	Identifies	Polar Tundra	O	1	1	A
8.	Application	Predicts	Equatorial Region	O	1	1	A
9.	Application	Establishes relationship	Polar Tundra	O	1	1	C
10.	Knowledge	Recalls	Mid latitude grassland	VSA	1	1	C
11.	Understanding	Compares	Equatorial Polar	VSA	1	1	B
12.	Understanding	Identifies	Polar Tundra	VSA	1	1	B
13.	Application	Infers	Tropical Desert	VSA	1	1	C
14.	Knowledge	Recalls	Polar Tundra	SA	2	2	C
15.	Knowledge	Recalls	Tropical Desert	SA	2	2	C
16.	Knowledge	Recalls	Mid-latitude grassland	SA	2	2	C
17.	Application	Infers	Mid-latitude grassland	SA	2	2	A
18.	Knowledge	Recalls	Tropical Desert	E	4	5	C
19.	Knowledge	Recalls	Equatorial Region	E	4	5	C
20.	Skill	Draws	Tropical Desert	VSA	1	2	C

†*E*	*Essay*
SA	*Short Answer*
VSA	*Very Short Answer*
O	*Objective*

**A*	*Difficult*
B	*Average*
C	*Easy*

Man and Food Supply

Unit 12 : Man and Food Supply
Maximum Marks : 30

Class : X
Time : 40 Mts.

BLUEPRINT

Objectve / Form of Questions / Content Unit	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
	E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O	E	SA	
1. Population distribution				1(1)		2(1)				2(1)		2(2)			7(5)
2. Population growth	5(1)					2(1)				2(1)					9(3)
3. Food webs				(1)		2(1)		2(2)		2(1)		1(1)			8(6)
4. Food supply				1(1)		2(1)				2(1)		1(1)			6(4)
Sub. Total	5(1)			3(3)		8(4)		2(2)		8(4)		4(4)			
Total	8(4)				10(6)				12(8)						30(18)

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
* *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No. 1	Marks : 5
Short Answer (SA)	No. 8	Marks : 16
Vary Short Answer (VSA)	No. 9	Marks : 9
Objective (O)	No.	Marks :
	18	30

Scheme of Options :

Scheme of Sections :

Man and Food Supply

Class : X

Time : 40 mts.
M. Marks : 30

INSTRUCTIONS

I. All questions are compulsory.

II. Answers are to be written in the answer book.

III. Questions 1 to 9 have 4 proposed answers A,B,C, and D only one of which is correct. The letter indicating the correct answer should be written in the answer book.

IV. Questions 10 to 14 carry 2 marks each and answers should not exeed 10-15 words.

1. Which of the following trends of population growth rate is seen in Western Europe ?
   - A. Births equal deaths
   - B. Births lower than deaths
   - C. Births higher than deaths
   - D. None of the above.

2. Which of the following is the major function of a food chain ?
   - A. Food supply to other organisms
   - B. Constant supply of energy
   - C. Change in types of foods
   - D. Energy transfer from lower to higher organisms.

3. Urban population in developing countries increases because of :
   - A. Higher birth rate in cities
   - B. Rural to urban migration
   - C. Greater opportunity of urban employment
   - D. Lower death rate in cities.

4. The relationship between green plants and producers is similar to the relation between bacteria and :
   - A. Producers
   - B. Consumers
   - C. Decomposers
   - D. Nutrients.

5. Productivity of forest land is higher than cultivated land because :
   - A. Cultivated lands have loose soil

B. Forests replenish nutrients
C. Cultivated lands are tilled
D. Forests retain moisture.

6. To check the decrease in the density of population in the south-eastern parts of M. P. where mostly *adivasis* are concentrated which of the following important measures would you take ?
   A. Bring more land under cultivation by clearing forests
   B. Build huts and roads for *adivasis*
   C. Open dispensaries and schools for *adivasis*
   D. Increase land under settled agriculture.

7. *Statements*

I. As technology improves Man's ability to adapt his environment increases.

II. The percentage share of employment in resource industries like grazing, mining, farming are shrinking in the U. S. A.

Direction

Indicate which of the following best describes the relationship between the two statements given above.
   A. The situation in statement II contradicts the principle in statement I.
   B. The situation in statement II neither contradicts nor can be explained by the principle in statement I.
   C. The situation in statement II can be explained by the principle in statement I.

8. Productivity is lower in the grasslands than in the forests because of :
   A. Lesser producers than consumers
   B. Lesser producers than decomposers
   C. More producers than consumers
   D. More producers than decomposers.

9. Which of the given changes in food habits will favourably affect capacity of land supporting a number of people ?
   A. Lesser consumption of plant and animal foods
   B. Equal consumption of plant and animal foods
   C. More consumption of plant foods
   D. More consumption of animal products.

10. 'Future pattern of high-density of population areas will be largely dispersed all over the world'. Why ?

11. Population growth rate has been 0.1% per annum with the practice of settled agriculture. Why had this growth rate increased only after the onset of settled agriculture and not prior to it ?

12. Why is grazing on open pastures less productive for the rearing of cattle for beef ? What is the better method which is practised now ?

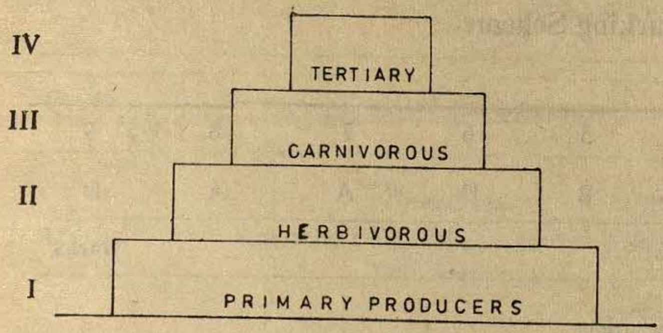
13. Explain why commercial fishing has become the main economic pursuit of N. W. Europe, Japan and China over beef cattle rearing.

14. Distribution of population in terms of number per unit land is not the only aspect of population studies. Suggest some other aspects which may also explain the real phenomenon of population distribution.

15. The world is finite, resources scarce, Oil is going, ores depleted. Man is far too enterprising. Fire will rage with Man to fan it. Soon we'll have a plundered planet. People breed like fertile rabbits, people have disgusting habits.
Moral
The evolutionary plan
Went astray when evolving man.

—*Kenneth Boulding*

Propose a plan to this conservationist complain to preserve our planet from being depleted.



16. In the given pyramid of numbers which level will have to be reduced in order to ensure an ecological balance of producers.

17. *Statements*

I. Rate of increase of 3 per cent is necessary to maintain an adequate level for the entire world population in 2000 AD.

II. Per capita income improvement is minimal in the last decade, therefore deficiency gap continues to widen as one enters the stage of maximum population growth.

What is the main difference in the approaches of these two hypotheses which explain the effect of population growth on economic growth ?

18. What are the main trends of population growth rates in 1. Australia, 2. Asia, 3. Europe ? How does this affect the age structure of population in the economically productive age group in these same countries ?

Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	7	8	9
Key	D	B	C	C	B	D	A	A	D

Q. No.	Expected outline answers	Marks
10.	Dispersed : With the opening up of new areas and availability of new resources and occupations.	2
11.	Settled agriculture—lowering of death rate and more births consequently and increase in population growth.	2
12.	The beef cattle on open pastures does not increase the productivity of soils as there is no return of nutrients. It is better to grow the crops to feed the animals.	2
13.	Lack of arable land—low productivity of land—availability of long coastal fishing areas.	2
14.	Information on urban and rural population break-up in these same regions. Male-female break up.	2
15.	Use of potential resources. Efficient technology to reduce wastage. Improvement of economic gains to man.	2
16.	Carnivorous Tertiary consumers.	2
17.	*Statement A* Denies the possible role of meeting any more population growth. *Statement B* Analyses the impact of economic growth on supplying sufficient food for people.	2

Q. No.	Expected outline answer			Marks
		Growth rate	*Work force*	
18.	Australia :	Low birth rate Low death rate	Few persons who are young and economically productive	5
	Asia :	High birth rate Low death rate	Young population with few workers in the productivity age group.	
	Europe :	Low birth rate High death rate	More persons in the productive working age group.	

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recalls	Population distribution	O	1	1	C
2.	Knowledge	Recalls	Food Webs	O	1	1	C
3.	Knowledge	Recalls	Food Supply	O	1	1	C
4.	Understanding	Compares	Food Webs	O	1	1	B
5.	Understanding	Identifies	Food Webs	O	1	1	B
6.	Application	Infers	Population distribution	O	1	1	A
7.	Application	Infers	Population distribution	O	1	1	A
8.	Application	Establishes relationship	Food Webs	O	1	1	A
9.	Application	Establishes relationship	Food Supply	O	1	1	A
10.	Understanding	Identifies	Food Supply	SA	2	1½	B
11.	Understanding	Compares	Food Supply	SA	2	1½	B
12.	Understanding	Identifies	Food Supply	SA	2	1½	B
13.	Understanding	Identifies	Food Supply	SA	2	1½	B
14.	Application	Establishes relationship	Food Supply	SA	2	1½	A
15.	Application	Establishes relationship	Food Supply	SA	2	1½	A
16.	Application	Establishes relationship	Food Supply	SA	2	1½	A
17.	Application	Establishes relationship	Food Supply	SA	2	1½	A
18.	Knowledge	Recalls	Food Supply	E	5	15	C

†O	*Objective*
VSA	*Very Short Answer*
SA	*Short Answer*
E	*Essay*

***A** *for Difficult*
B *for Average*
C *for Easy*

Natural Resources of the Earth and Basic Occupations

Unit 13 : Natural Resources of the Earth and Basic Occupations

Maximum Marks : 30

Class : X

Time : 40 mts.

BLUEPRINT

Objective / Form of Question / Content Unit	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
	E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O	E	SA	
1. Exhaustible and non-exhaustible resources		2(1)		1(1)			1(1)	1(1)							5(4)
2. Potential and developed resources	4(1)		1(1)	1(1)		2(1)		1(1)				1(1)			10(6)
3. Occupations															
i) Primary				1(1)				1(1)				1(1)		2(1)	5(4)
ii) Secondary				1(1)	4(1)	2(1)					1(1)	1(1)			9(5)
iii) Tertiary							1(1)								1(1)
Sub Total	4(1)	2(1)	1(1)	4(4)	4(1)	4(2)	2(2)	3(3)			1(1)	3(3)		2(1)	30(20)
Total	11(7)				13(8)				4(4)				2(1)		30(20)

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
** Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No. 2	Marks : 8
Short Answer (SA)	No. 4	Marks : 8
Very Short Answer (VSA)	No. 4	Marks : 4
Objective (O)	No. 10	Marks : 10
	20	30

Scheme of Options :

Scheme of Sections :

Natural Resources of the Earth and Basic Occupations

Class : X

Time : 40 mts
M. Marks : 30

INSTRUCTIONS

I. All questions are compulsory.

II. Read the questions carefully before trying to answer.

III. Answers have to be written on the answer book.

IV. Be quick in answering the questions.

V. Do not waste time on a question when you are not sure of the answers. Pass on to the next.

VI. In questions 1 to 10 there are four proposed answers marked A, B, C, and D. Only one of these answers is correct. The letter indicating the correct answer should be written in bold letters against the question number in the answer book.

VII. Questions 1 to 14 carry one mark each. Questions 15 to 18 carry two marks each. And 19 to 20 carry four marks each.

1. Which one of the following statements best summarises the idea that conservation of water is important ?
   A. Availability of small resource of fresn water
   B. Insufficient use of underground water
   C. Excessive use of underground water
   D. Depletion of underground water sources.

2. Which one of the following criteria is used for identifying potential resources ?
   A. Exhaustibility
   B. Abundant quantity
   C. Future usability
   D. Future demand

3. Which of the following would come under a different basis of classification than the others when occupations are classified according to productivity ?
   A. Fishing-lumbering

B. Grazing-farming
C. Mining-manufacture
D. Transportation-trade

4. What is the criteria used for identifying primary occupations ?
   A. Little use of natural resources
   B. Use of resources for trade
   C. Processing of natural resources.
   D. Direct consumption of natural resources.

5. In spite of being the second largest producer of petroleum, U. S. A. still imports one-third of its total demand because of the :
   A. Need to conserve and meet its present demand
   B. Cost of petroleum production being high
   C. Insufficient resources to meet its demand
   D. Need to import in order to maintain balance of trade.

6. The developed resource differs from a potential resource in that it is :
   A. Totally consumed
   B. Being over-used
   C. Being conserved
   D. Easily accessible.

7. Which of the following characteristics are common to commercial grazing and nomadic herding ?
   A. Movement of cattle to pasture lands
   B. Rearing of a variety of animals
   C. Extensive sparsely populated areas
   D. Meat processing industries in the region.

8. *Statements*

I. Lack of mineral fuels results in the greatest use of water power potential.

II. Africa has developed only 0.5% of its potential of water power.

Directions

A. The situation in statement II contradicts the principle in statement I.

B. The situation in statement II neither contradicts nor can be explained by the principle in statement I.

C. The situation in statement II can be explained by the principle in statement I.

9. Why has the development of economical ways to process low grade ores become increasingly important ?
   A. Availability of more sources of low grade ores
   B. Need to preserve high grade ore resources
   C. Exhaustion of high grade ore resources
   D. Absence of substitutes for such ores.

10. Which of the river valleys have the best conditions in terms of availability of raw material and power for the setting up of an iron and steel plant ?
   A. Chambal
   B. Lower Narmada
   C. Cauvery
   D. Krishna.

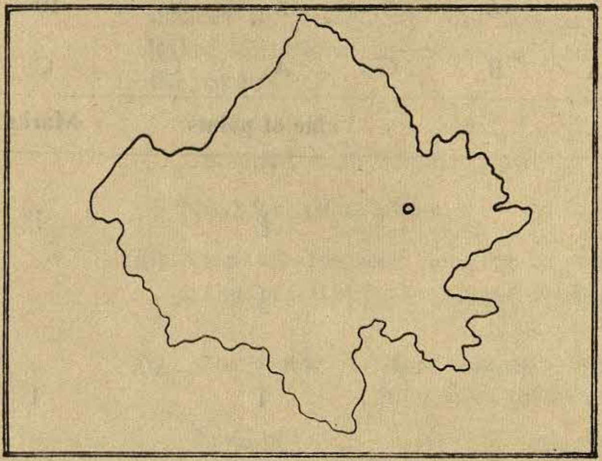
11. Classify the following resources of Rajasthan—soil, copper, underground water, marble, sheep, population, zinc—and give the basis of your classification.

12. Which among the following resources does not belong to the same category as the other resources ?

a. Coal, b. Petroleum, c. Water, d. Uranium,
e. Forests, f. Fishes, g. Rubber, h. Iron-ore

13. Give reasons why shipping is a tertiary activity whereas ship-building is a secondary sector activity.

14. Considering the power and natural resources of Kashmir which industry could be developed here ?



15. On the map of Rajasthan given above shade the areas where the Rajasthan Canals have an impact on the development of agriculture in Rajasthan.

16. What is the difference between :

    (i) Open-pit and shaft mines ?

    (ii) Mineral and mineral ore ?

17. Though every nation has resources why is it said that the distribution of potential and developed resources on the earth's surface is highly uneven ?

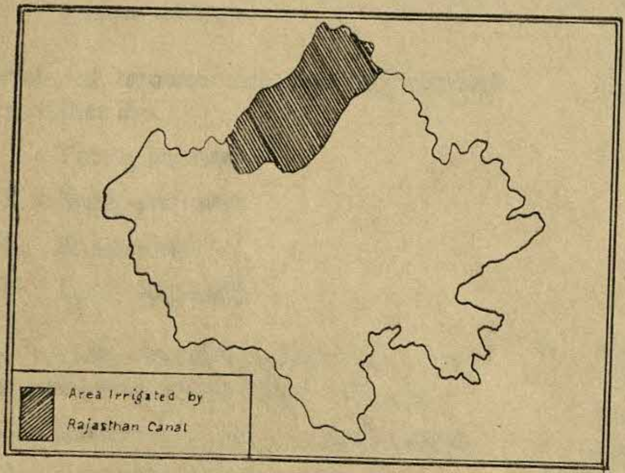
18. Give two reasons why the jute industry is not as widely distributed as the cotton textile industry ?

19. Describe with examples from world regions how economic factors decide the land use pattern of a region.

20. In developed countries of the world, manufacturing industries are developed on a large scale. Why ? Give at least four suitable arguments in support of the above statement.

Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	7	8	9	10
Key	B	C	D	D	A	B	C	A	C	C

Q. No	Expected outline answers	Value of points	Marks
11.	Underground water, soil People } Potential resources	½	1
	Marble, zinc Sheep } Developed resources	½	
12.	Coal, petroleum, uranium, iron ore	1	1
13.	Shipping is a service whereas ship-building is an industry which manufactures ships in a factory, using labour and capital.	1	1
14.	Paper pulp production	1	1
15.			2
16.	(i) Deep pit mining ; other is open mining.	1	
	(ii) Minerals are a natural substance in which one or more chemical elements are found in a definite chemical composition whereas an ore is a metal in the rock layers.	1	2

Q No.	Expected outline answers	Value of points	Marks
17.	The extent to which the resource is developed decides its potentiality and this development is linked to the level of economic development of the country.	2	2
18.	(i) Climatic control of jute growing.	1	
	(ii) Need for skilled labour.	½	2
	(iii) Need for frequent flooding of jute areas to maintain fertility hence highly localised.	½	
19.	(i) Cost factor More expensive to cultivate hilly areas than plain land.	1	
	(ii) Level of technology Primitive people depend on gathering and shifting agriculture whereas with better technology sedentary and commercial agriculture occurs. Congo, U. S. A., Australia.	1	
	(iii) Accessibility With better transport links new areas are opened for economic activities. Canada, USSR, Brazil.	1	
	(iv) Population Densely populated areas result in competition of land use to achieve maximum returns.	1	4
20.	(i) Secondary occupations provide opportunities for employment.	1	
	(ii) Contributes to increase of National Income.	1	
	(iii) Primary industries are also assisted.	1	
	(iv) Increase in standard of living.	1	
	(v) Helps reduce the rate of population growth.	1	4

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of Questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recalls	Exhaustible and non-exhaustible resources	O	1	1	B
2.	Knowledge	Recalls	Potential and developed resources	O	1	1	B
3.	Knowledge	Recalls	Primary occupation	O	1	1	B
4.	Knowledge	Recalls	Secondary occupation	O	1	1	B
5.	Understanding	Gives reasons	Exhaustible and non-exhaustible resources	O	1	1	A
6.	Understanding	Discriminates	Potential and developed resources	O	1	1	B
7.	Understanding	Compares	Primary occupation	O	1	1	A
8.	Application	Infers	Potential and developed resources	O	1	1	B
9.	Application	Establishes relationship	Primary occupation	O	1	1	B
10.	Application	Selects relevant facts	Secondary occupation	O	1	1	B
11.	Knowledge	Classifies	Potential and developed resources	O	1	1	A
12.	Understanding	Discriminates	Exhaustible and non-exhaustible resources	O	1	1	A
13.	Understanding		Tertiary occupation	O	1	1	B
14.	Application	Infers	Secondary occupation	O	1	1	B
15.	Skill	Draws	Primary occupations	O	2	3	B
16.	Knowledge	Recalls	Exhaustible and non-exhaustible resources	O	2	3	A
17.	Understanding	Identifies relationship	Potiential and developed resources	O	2	3	B
18.	Understanding	Gives reasons	Secondary occupations	O	2	3	A
19.	Knowledge	Recalls	Potential and developed resources	O	4	7	A
20.	Understanding	Compares	Secondary occupations	O	4	7	B

†*E*	*Essay*
SA	*Short Answer*
VSA	*Very Short Answer*
O	*Objective*

**A*	*Difficult*
B	*Average*
C	*Easy*

Irrigation in India

Unit 14 : Irrigation in India
Maximum Marks : 25

Class : X
Time : 40 mts.

BLUEPRINT

Objective / Form of Question / Content Unit	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
	E	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	
1. Need for Irrigation				1(1)		2(1)						1(1)			4(3)
2. Types of Irrigation		2(1)					1(1)	1(1)				1(1)			5(4)
3. Distribution of area under Irrigation		1(1)						1(1)			1(1)			2(1)	5(4)
4. Imp. Projects	* 3(1)						1(1)	1(1)					* 2(—)		7(3)
5 Impact on Economy				1(1)		2(1)						1(1)			4(3)
Sub Total	3(1)	3(2)		2(2)		4(2)	2(2)	3(3)			1(1)	3(3)	2(—)	2(1)	
Total	8(5)				9(7)				4(4)				4(1)		25(7)

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
* *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No. 1	Marks : 5
Short Answer (SA)	No. 4	Marks : 8
Very Short Answer (VSA)	No. 4	Marks : 4
Objective (O)	No. 8	Marks : 8
	17	25

Scheme of Options :

Scheme of Sections :

Irrigation in India

Class X

Time : 40 mts.
M. Marks : 25

INSTRUCTIONS

I. All questions are compulsory.

II. Read each question carefully before trying to answer it.

III. Answers have to be written on the answer-book provided.

IV. Be quick in answering the questions.

V. Do not waste time on the question the answer of which you are not sure of. Pass on to the next.

VI. In questions 1 to 8, there are five answers marked A,B,C,D and E. Only one of these answers is correct. The letter indicating the correct answer should be written in bold letters against the question number in the answer book.

VII. Questions 1 to 12 carry one mark each, questions from 13 to 16 carry two marks each and question 17 carries five marks.

1. Which of the following States has the least percentage of agricultural land under irrigation ?
   - A. Madras
   - B. Kerala
   - C. Madhya Pradesh
   - D. Assam.

2. In which of the following States is cotton cultivation mainly based on irrigation ?
   - A. Haryana
   - B. Maharashtra
   - C. Gujarat
   - D. Madhya Pradesh.

3. Which of the following geographical factors has mainly motivated the building of a large number of dams in South India ?
   - A. Existence of perennial rivers
   - B. Seasonal fluctuation of rainfall
   - C. Suitable sites amidst hard rocks
   - D. Little danger from earthquakes.

4. Around which of the following places in India does land have the least chances for tubewell irrigation ?
   - A. Bhopal
   - B. Vijayawada

C. Ahmedabad
D. Nagpur.

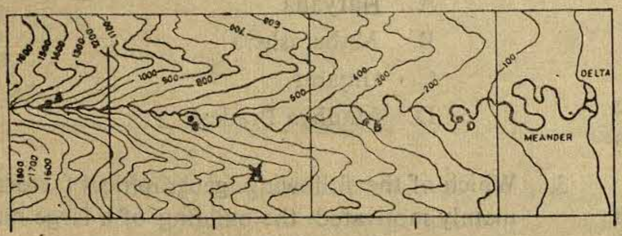
5. Which of the following river valley projects provides the least amount of irrigational facilities ?
   A. Bhakra Nangal
   B. Hirakund
   C. Tungabhadra
   D. Shirawathy.

6. The region with which of the following sets of climatic characteristics would need irrigation for raising a good crop of rice ?

	Summer rainfall	*Winter rainfall*	*Annual temperature*
A.	1270 mm	380 mm	27.8°C
B.	1270 mm	250 mm	33.3°C
C.	1270 mm	380 mm	38.8°C
D.	1270 mm	127 mm	44.4°C

7. Which of the following rivers would be best suited for the development of an irrigational scheme to augment jute production ?
   A. Hoogly
   B. Narbada
   C. Tista
   D. Sone.

8.



In the above diagram the site marked by which of the letters would be best suited for taking off a diversion canal from a perennial river for irrigating land in the area marked X ?

9. Name the State in India which has the largest proportion of cultivated area under canal irrigation.

10. Give one point of difference between the purpose of Chambal Valley and Kosi Valley Projects.

11. Why is tank irrigation common on Deccan plateau and not in northern India ?

12. A planner works on an irrigation scheme. For this purpose, he consults a topographic map, a geological map and a mineral map. But an important map regarding the natural environment has been omitted by him. Which map will he need ?

13. Mention four important ways of lifting underground water for irrigation.

14. Give two factors that have, of late, accounted for a significant increase in the area under sugercane cultivation in South India.

15. Give two reasons why irrigation facilities have become necessary in India even in the areas which receive a fairly good amount of rainfall.

16. On the given outline map of India, show by means of shading, the areas presently under canal irrigation.

17. Describe the advantage accruing from the construction of the Bhakra dam. Draw a map to show the location of the Bhakra dam.

Or

Describe the purposes intented to be achieved from the Damodar Valley Project. Draw a sketch map to show the area covered by this scheme.

Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	7	8
Key	D	A	B	A	D	D	C	C

Q No.	Expected outline answers	Value of points	Marks
9.	Punjab	1	1
10.	Unlike Kosi, no problem of flood control in the Chambal Valley Project.	1	1
11.	(i) Seasonal rainfall (ii) Suitability of the terrain	½ ½	1
12.	Climate	1	1
13.	Persian wheel Pumping set Tubewell Charas (Mot)	½ ½ ½ ½	2
14.	(i) Increased facilities of irrigation (ii) Constructions of dams and canals.	2	2
15.	Variability in amount and time of rainfall	1+1	2
16.	(i) N. W. Rajasthan (ii) South Haryana (iii) South Uttar Pradesh (iv) West Bengal (v) S. Rajasthan (vi) East Andhra Pradesh (vii) Any other	½ marks each	2
17.	(i) Utilisation of extra run off water of the Sutlej (ii) Extension of irrigated area in the Punab, Haryana and Rajasthan	½ 1½	

Q. No.	Expected outline answer	Value of points	Marks
	(iii) Generation of Hydel Power	½	
	(iv) Diagram		
	Correctness	1½	
	Neatness	½	5
	Or		
	(i) Control of flood in West Bengal	1	
	(ii) Irrigation in Bihar and West Bengal	½	
	(iii) Generation of Hydel power	½	
	(iv) Water transport	½	
	(v) Other minor purposes	½	
	(vi) Diagram		
	Correctness	1½	
	Neatness	½	5

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recalls	Need for Irrigation	O	1	½	C
2.	Knowledge	Recalls	Impact on Economy	O	1	½	B
3.	Understanding	Identifies relationship	Distribution	O	1	1	B
4.	Understanding	Identifies	Types	O	1	1	B
5.	Understanding	Identifies	Impact on projects	O	1	1	B
6.	Application	Selects relevant facts	Need	O	1	½	A
7.	Application	Selects relevant facts	Impact	O	1	½	B
8.	Application	Establishes relationship	Types	O	1	1	A
9.	Knowledge	Recalls	Distribution	VSA	1	1	C
10.	Understanding	Contrasts	Impact on projects	VSA	1	1	B
11.	Understanding	Contrasts	Types	VSA	1	1	B
12.	Application	Proposes a plan	Distribution	VSA	1	1	A
13.	Knowledge	Recalls	Types	SA	2	3	B
14.	Understanding	Identifies	Impact	SA	2	3	B
15.	Understanding	Identifies	Need	SA	2	3	B
16.	Skill	Draws	Distribution	SA	2	3	B
17.	Knowledge	Recalls	Impaet on Project	E	5	16	B

†E	*Essay*
SA	*Short Answer*
VSA	*Very Short Answer*
O	*Objective*

*A	*Difficult*
B	*Average*
C	*Easy*

Mineral Wealth and Fuels

Unit 12 : Mineral Wealth and Fuels
Maximum Marks : 25

Class : X
Time : 40 mts.

BLUEPRINT

Objective / Form of Question / Content Unit	Knowledge				Understanding				Application				Skill		Total
	E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O	E	SA	
1. Introduction				1(1)				1(1)				1(1)			5(3)
2. Metals		2(1)				2(1)		2(2)		2(1)					8(5)
3. Non-metals				1(1)		2(1)						1(1)			4(3)
4. Fuels	5(1)			1(1)				2(2)				1(1)			8(5)
Sub Total	5(1)	2(1)		2(2)		4(2)		5(5)		2(1)		3(3)		2(1)	25(16)
Total	9(4)				9(7)				5(4)				2(1)		25(16)

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
** Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No. 1	Marks : 5
Short Answer (SA)	No. 5	Marks : 10
Very Short Answer (VSA)	No.	Marks :
Objective (O)	No. 10	Marks : 10
	16	25

Scheme of Options :

Scheme of Sections :

Mineral Wealth and Fuels

Class : X

M. Marks : 30
Time : 40 minutes

INSTRUCTIONS

I. All questions are compulsory.

II. Read the questions carefully before attempting them.

III. Be quick in answering the questions.

IV. Do not waste time on the question the answer of which you are not sure of. Pass on to the next.

V. In each of the questions from 1 to 10 there are five answers marked A, B, C, D and E. Only one of these answers is correct. The letter indicating the correct answer should be written in bold letters against the question number in the answer book.

VI. Answers to questions 11 to 15 should not exceed 30 words and carry 2 marks each. Question number 16 carries 4 marks and answer should not exceed 100 words.

1. Which is the hardest of the following minerals ?
   - A. Quartz
   - B. Gypsum
   - C. Topaz
   - D. Corundum
   - E. Calcite.

2. Which of the following is a non-metallic mineral ?
   - A. Galena
   - B. Monazite
   - C. Carbon
   - D. Bauxite
   - E. Graphite.

3. Which of the following can be called a mineral, an ore and a rock at same time ?
   - A. Limestone
   - B. Basalt
   - C. Magnetite
   - D. Quartz
   - E. Anthracite.

4. Which of the following is different from the remaining four as a mineral ?
   - A. Siderite
   - B. Limonite

C. Haemetite
D. Iron Physites
E. Hornblende.

5. The country which though a very important producer of iron ore has not been able to establish any significant Iron Steel Industry, is :
    A. East Germany
    B. Brazil
    C. Italy
    D. Australia
    E. France.

6. Coal is an attracting magnet of manufacturing Industries. Which of the following industrial areas is an exception to this ?
    A. Birmingham (U. K.)
    B. Birmingham U. S. A.)
    C. Milan
    D. Ruhr Valley
    E. Don Basin.

7. Middle East Countries do not consume much oil although they are the major producers. This is because of their :
    A. Insufficient demand due to few industries
    B. Availability of fuels other than oil
    C. Limited refining capacity
    D. High cost of laying down pipe-lines
    E. Absence of sufficient skilled manpower.

8. Which type of mining is most likely to be resorted to for getting coal from a river valley which has cut deep across coal seams ?
    A. Open pit
    B. Deep pit
    C. Shaft
    D. Dredging
    E. Hydraulic.

9. Which of the following regions should the Ministry of Mining arrange to be explored for the best prospects of potash deposits ?
    A. Konkan Coast
    B. Ganga Delta
    C. Nilgiris
    D. West Rajasthan
    E. Assam Valley.

10. Which one of the following minerals is likely to compel an under-developed country to seek foreign collaboration for its successful exploitation ?
    A. Bituminous coal
    B. Uranium ore
    C. Petroleum
    D. Lignite
    E. Iron ore

11. Draw a labelled diagram to explain shaft-mining.

12. Mention two important customers and two competitors of India's foreign trade in manganese.

13. Explain why bauxite is sometimes called a tropical ore.

14. Quartz, graphite and magnatite are all three minerals but the first two are different from the third. Mention two more minerals which may be classified with the first two but not with the third.

15. What do you understand by the term 'gold rush' ? Name two areas affected by the phenomenon of gold rush.

16. Describe in brief the life history of coal.

Or

Describe the origin of mineral oil.

Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	7	8	9	10
Key	D	E	C	E	C	C	B	B	D	C

Q. No.	Expected outline answers	Value of points	Marks
11.	Sketch (i) Correctness (ii) Neatness (iii) Labelling.	 1 ½ ½	2
12.	(i) Customers : Any two U. S. A., France U. K., Germany, etc. (ii) Competitors : (Any two.) U. S. S. R., Brazil, Union of Ghana, South Africa, Morocco, Congo, etc.	½	2
13.	(i) Most of the bauxite is mined in tropical or near tropical (sub-tropical) regions—more than half of the world's present supply. Additional Point : Heavy rains under tropical condition wash away other soluble minerals leaving a better concentration of the oxide of aluminium.	2	2
14.	Any two of the following : Gypsum, Mica, Rock salt, Sulphur, Diamond or any other non-metallic mineral.	1	2
15.	(i) New lands were discovered incidently when men went out in search of gold to become rich. Some typical instances are (a) the Spaniards discovering a great deal of south and central America, (b) the American pioneers' search at S. W. desert land,	1	2

Q. No.	Expected outline answers	Value of points	Marks
	(c) the Australians searching their great desert.		
	(ii) In these areas population increased initially because of the discovery of gold.	½	
16.	Life history of coal :		
	(i) Vast swamps covered with most luxuriant growth during carboniferious period.	1	
	(ii) Plants died and covered with much silt, etc. More plants grew and died resulting in layers after layers of debris.	1	
	(iii) Due to pressure debris was compressed. Earth's surface submerged and layer of sand, etc. deposited. More squeezing due to pressure. Peat transformed into harder substance—coal.	1	5
	(iv) Through repeated submergence and emergence of earth's crust various coal seams formed.	1	
	(v) Exploitation for use.	1	
	Or		
	Origin of mineral oil :		
	(i) The exact origin still is hypothetical, but the most widely accepted one is as follows.	1	
	(ii) Sinking and entrapping of a vast number of main creatures and plants in and of the sea or lake.	1	
	(iii) Sand, ultimately rock deposits of several thousand feet taking thousands of years in the process.	1	
	(iv) Transforming of the organic trapped matter into oil due to pressure, heat and chemical (bacterio logical) action.	1	5
	(v) Anticlinal or "facet straps" where oil accumulates inside earth (impervious ceilings).	1	

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of Questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recognises	Introduction	O	1	1	C
2.	Knowledge	Recognises	Non-metals	O	1	1	C
3.	Understanding	Classifies	Introduction	O	1	1	A
4.	Understanding	Discriminates	Metals	O	1	1	A
5.	Understanding	Sees relationship	Fuels	O	1	1	A
6.	Understanding	Finds examples	Metals	O	1	1	A
7.	Understanding	Finds example	Fuels	O	1	1	B
8.	Application	Establishes relationships	Introduction	O	1	1	B
9.	Application	Hypothesises	Non-Metals	O	1	1	B
10.	Application	Predicts	Fuels	O	1	1	A
11.	Skill	Draws diagram	Introduction	SA	2	2	A
12.	Knowledge	Recalls	Metals	SA	2	2	C
13.	Understanding	Explains	Metals	SA	2	2	A
14.	Understanding	Gives examples	Non-Metals	SA	2	2	B
15.	Application	Justifies and comments	Metals	SA	2	2	A
16.	Knowledge	Recalls	Fuels	E	5	5	A
17.	(Opt.) Knowledge	Recalls	Fuels	E	5	5	A

†E	*Essay*
SA	*Short Answer*
VSA	*Very Short Answer*
O	*Objective*

**A*	*Difficult*
B	*Average*
C	*Easy*

Industries of the World

Unit 16 : Industries of the World **Class :** X

Time : 40 mts.

Maximum Marks : 30

BLUEPRINT

Objective	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
Content Unit \ **Form of Question**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	
1. Types of Industries		2(1)				2(1)		1(1)							5(3)
2. Factors of Localizaion of Industries						2(1)		1(1)		2(1)		1(1)			6(4)
3. Major Manufacturing industries of the World								1(1)	4(1)	2(1)					7(3)
4. Major industrial regions of India		2(1)				2(1)		2(2)				1(1)			7(5)
5, Major industrial regions of the World (other than India)								2(2)						3(1)	5(3)
Sub Total		4(2)				6(3)		7(7)	4(1)	4(2)		2(2)		3(1)	30(18)
Total	4(2)				13(10)				10(5)				3(1)		30(18)

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*

* *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No. 1	Marks : 4
Short Answer (SA)	No. 8	Marks : 17
Very Short Answer (VSA)	No.	Marks :
Objective (O)	No. 9	Marks : 9
	18	30

Scheme of Options:

Scheme of Sections:

Industries of the World

Class : X

Time : 40 mts.
M. Marks : 30

INSTRUCTIONS

I. All questions are compulsory.

II. Answer questions 1 to 19 on the separate answer book provided.

III. Questions 1 to 8 contain four alternative answers marked A, B, C and D. Only one is correct. Put down the letter given against the correct answer, in your answer book.

IV. Questions 1 to 8 carry one mark each and from 9 to 10 carry half mark each. Questions 11 to 17 carry two marks each. Question 18 carries 3 marks and 19 carries 4 marks.

1. Of late some new industrial units have come up in India as a result of river valley projects. Which of the following industrial centres best illustrates this ?

   A. Bokaro
   B. Salem
   C. Delhi
   D. Baroda.

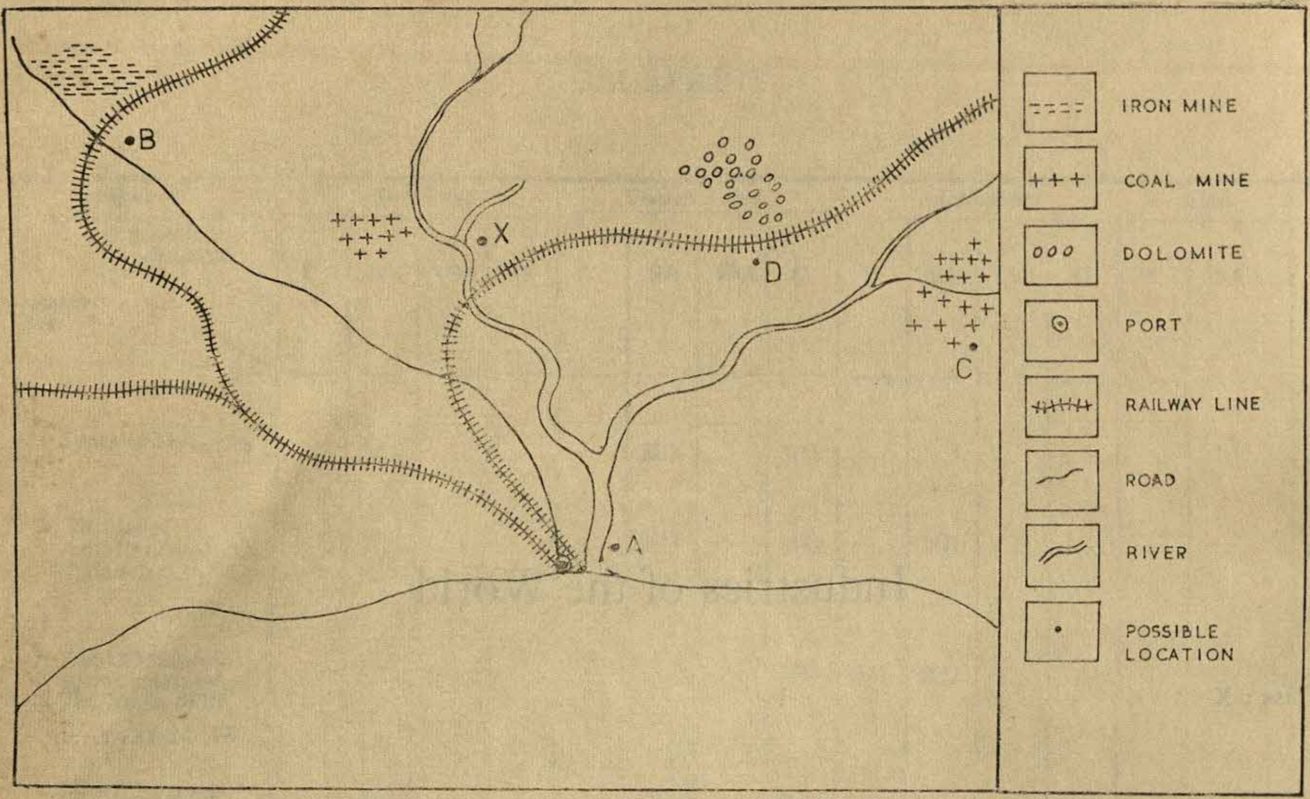
2. 'Production on a large scale pre-supposes a potentially big internal market for the finished products'. In respect of which of the following industries of the U. K. does this fact not hold good ?

   A. Woolen industry
   B. Chemical industry
   C. Iron and steel industry
   D. Cotton textile industry.

3. The Himalayan region which is as yet without a notable paper producing centre has made its mark in this field with the announcement of the setting of paper mills in Himachal Pradesh, Jammu and Kashmir, Sikkim and Bhutan. What has now motivated the setting of new paper mills in this region ?

   A. Availability of cheap labour
   B Need to clear forest for horticulture
   C. Extensive forest areas
   D. Development of road transport.

4. In the sketch map given on page 130 an iron and steel factory is located at station X near a coal



mine. A second iron and steel factory is proposed to be set up in this region. Which of the places marked A, B, C and D will be the most suitable for it ?

5. As a result of the availability of electric power from the Chambal Valley Project there has occured a sudden spurt in the establishment of cement producing units in cement factories in Rajasthan. Why has this not happened in the adjacent upper Chambal Valley ?
   - A. Upper Chambal produces less electric power
   - B. Upper Chambal Valley already has several cement factories
   - C. Middle and Lower Chambal has more limestone
   - D. Rajasthan provides immediate market.

6. The Moscow industrial region is an exception to the Ural, Kuznets and Ukraine region because :

(i) It is located at market rather than raw material.

(ii) Ancillary industries like ship-building are possible

(iii) It was the first region to be established as an industrial centre.

- A. Statements (i), (ii) and (iii) correctly explain the fact
- B. Statements (i) and (ii) correctly explain the fact
- C. Statements (ii) and (iii) correctly explain the fact
- D. Statement (iii) correctly explains the fact.

7 and 8. Against each of industrial regions given below write the alphabet against the type of industry that best represents the industries found in them.

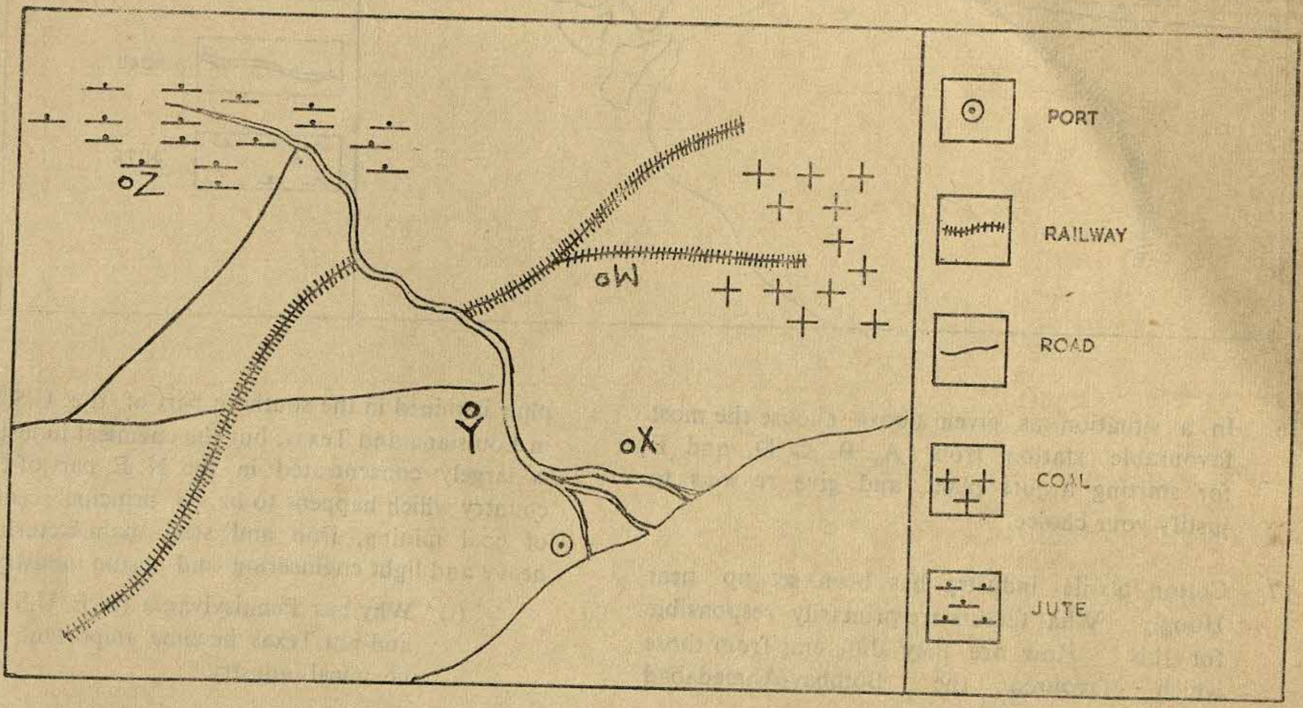
- A. Large scale basic industry
- B. Ship-building and Heavy Engineering
- C. Textile and Apparel Manufacture
- D. Light engineering goods.

1. Pittsburg-Youngstown
2. Clyde Basin

3. Midlands of Britain
4. Nagoya-Osaka
5. Damodar Basin
6. Bombay, Ahmedabad
7. Ural region
8. Delhi
9. Ruhr Basin
10. Thames Basin

12. Explain why ship-building is considered a secondary industry and *shipping* a tertiary activity.

13. Name the industries of national importance that are located in the following places in India :
    - (i) Mazagaon
    - (ii) Nepanagar
    - (iii) Pinjore
    - (iv) Bhadravati.



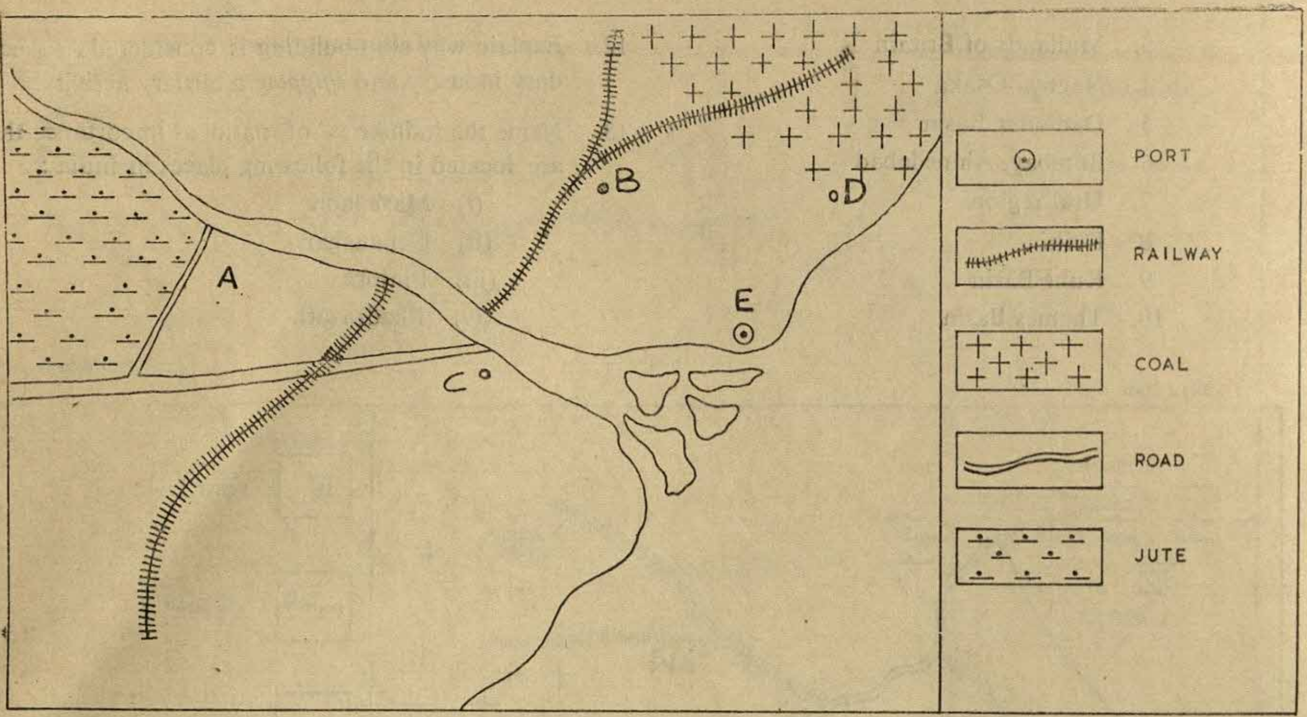
9. In the above diagram which of the given locations would be most suited for locating a jute packing industrial unit.
    - A. W
    - B. X
    - C. Y
    - D. Z

10. An important centre of silk textile at the cottage industry level in U. P. is ....

11. Industries producing goods primarily for consumption by people are called........................

14. Some countries have advanced industrially without possessing rich sources of iron and coal. Name any one such country. Do you find any weakness in their industrial base ? Give two reasons in support of your opinion.

15. Classify the iron and steel industry located at Bhilai from the view point of :
    - (i) Number of workers employed
    - (ii) Nature or product
    - (iii) Nature of raw material used
    - (iv) Its owner-ship.



16. In a situation as given above choose the most favourable station from A, B, C D, and E for starting a jute plant, and give reasons to justify your choice.

17. Cotton textile industry has been set up near Hoogly. What factors are primarily responsible for this ? How are they different from those which - favoured the Bombay-Ahmedabad region ?

18. On an outline map of the world show the following :

    (i) One leading region of iron-steel industry each in India, the U.S.A., Germany and the U.S.S.R.

    (ii) One important centre of ship-building industry each in Japan, the U. K., India and the U.S.S.R.

    (iii) One important centre of automobile industry in the U.S.A., Italy and France.

19. Sulphuric acid is the kingpin of chemical industry and it is rightly called the heavy chemical. Sulphur is mined in the southern part of the U.S.A. in Louisiana and Texas, but the chemical industry is largely concentrated in the N. E. part of the country which happens to be its principal centre of coal mining, iron and steel manufacturing, heavy and light engineering and plastic industry.

    (i) Why has Pennisylvania (N.E. U.S.A.) and not Texas become important for chemical industry ?

    (ii) What character of chemical industry makes it necessary to develop it within an industrial cluster ?

    (iii) Why is production of sulphuric acid called a heavy industry ?

    (iv) Do you agree that the level of development of sulphuric acid industry can be considered as the barometer of the level of industrial advancement ? Give reasons in support of your opinion.

or

Pittsburg-Youngstown region has been the leading centre of the U.S.A.'s iron and steel from the very beginning. Its location on the coal fields being its main asset. During the last fifty years a few other regions have had phenomenal growth in this field, but have not yet beaten this old centre of industry both in quantity and quality of output.

(i) Why was Pittsburg-Youngstown region the first centre of iron and steel in the U. S. A. ?

(ii) Which are other centres where iron and steel industry spread in the U. S. A. ?

(iii) Why are iron and steel units generally started near coal mines ?

(iv) Now-a-days experts are of the opinion that it is better to shift a new set-up of iron and steel unit west of the lake region. Do you agree ? Give reasons in support of your opinion.

Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	9
Key	B	D	C	A	C	B	D

Q. No.	Expected outline answer	Value of points	Total
7 & 8	(A) 1 (C) 6 (B) 2 (B) 7 (C) 3 (D) 8 (C) 4 (A) 9 (A) 5 (D) 10	½ mark each	2
10.	Varanasi	1	
11.	Consumer industry	½	
12.	Industries transforming primary products into articles directly useful to man are secondary industries therefore ship-building is a secondary industry.	1	2
	Shipping is teritiary activity, it is a must for running modern industry efficiently in a big way by transporting raw material or manufactured articles.	1	
13.	Mazagaon—Ship-building Nepanagar—paper industry Pinjore—Machine tools Bhadravati—Iron & steel.	½ ½ ½ ½	2
14.	Japan, Switzerland (any one)		
	Yes. Depends on import. Weakness is shortage of fuel and raw material.	1	
	No Can develop other power resources ; iron can be imported from friendly countries.	1	2
15.	(i) Large-scale industry (ii) Heavy industry (iii) Basic & key industry (iv) Public sector	½ ½ ½ ½	2

Q. No.	Expected outline answer	Value of points	Total
16.	C, Most favourable site along the river, midway between raw material and power and well connected transport line.	1 1	2
17.	Big market, port for export, cheap labour, favourrable climate, some cotton is produced in the neighbourhood.	1	2
	Coal is available in the neighbourhood.	1	
18.	On the outline map of the world :		
	(i) Leading areas of iron and steel industry	1	
	(ii) Centres of ship-building industry	1	3
	(iii) Centres of automobile industry.	1	
19.	(i) Availability of coal in Pennsylvania in N. E. region, coal as source of power and coal as raw material.	1	
	(ii) Chemicals necessary for all industries.	1	
	(iii) Heavy raw material and production in large quantity.	1	4
	(iv) Use of sulphuric acid is a reliable evidence.	1	
	or		
	(i) Availability of coal and iron from lake region, nearness of coast. Cheap and efficient labour.	1	
	(ii) In mid-Atlantic region on the western side of lake region.	1	
	(iii) More coal is required for smelting iron of the same quantity.	1	4
	(iv) Because of iron mines. Yes, if power is made available this region can be developed.	1	

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Understanding	Verifies hypothesis	Factors of localisation	O	1	1	B
2.	Understanding	Identifies relationship	Major manufacturing industries of the world	O	1	1	B
3.	Understanding	Identifies relationship	Major manufacturing industries of India	O	1	1	B
4.	Application	Predicts	Factors of localisation	O	1	1	A
5.	Understanding	Establishes relationship	Major manufacturing industries of India	O	1	1	A
6.	Application	Identifies relationship	Major industry of India	O	1	1	A
7 & 8	Knowledge	Recognises	Major manufacturing regions	O	1	1	B
9.	Knowledge	Recalls	Type finding cottage industry	VSA	2	½	C
10.	Knowledge	Recalls	Type of Industry	VSA	½	1	C
11.	Understanding	Discriminates	Type of Industry	SA	2	2	B
12.	Knowledge	Recalls	Major manufacturing industries of India	SA	2	2	C
13.	Understanding	Gives reasons	Factors of localisation	SA	2	2	B
14.	Understanding	Classifies	Type of industries	SA	2	2	A
15.	Application	Gives reasons	Major manufacturing industries	SA	2	2	A
16.	Understanding	Establishes relationship	Major industries of India	SA	2	2	B
17.	Application	Analyses situation, predicts, establishes relationship	Major industries in the world	SA	2	2	A
18.	Skill	Locates	Major manufacturing regions industries of the world	SA	2	2	A
19.	Application	Select relevant facts to explain the problem, judges adequacy and relevance of data	Major industries of the world	E	4	4	A

†E	*Essay*
VSA	*Very Short Answer*
SA	*Short Answer*
O	*Objective*

**A*	*Difficult*
B	*Average*
C	*Easy*

Transport and Communication

Unit 17 : Transport and Communication
Maximum Marks : 25

Class : X
Time : 30 mts.

BLUEPRINT

Objective	Knowledge				Understanding				Application				Skill		Total
Form of Questions / Content Unit	E	SA	VSA	O	E	SA	VSA	O	E	SA	VSA	O	E	SA	
1. Importance and types				1(1)		2(1)				1(1)					4(3)
2. Land transport		1(1)				2(1)		1(1)				1(1)		2(1)	7(5)
3. Water transport		2(1)		1(1)		2(1)						1(1)		1(1)	7(5)
4. Air transport		1(1)						1(1)				1(1)		1(1)	4(4)
5. Other means of communication		2(1)						1(1)							3(2)
Sub. Total		6(4)		2(2)		6(3)		3(3)		1(1)		3(3)		4(3)	25(19)
Total	8(6)				9(6)				4(4)				4(3)		25(19)

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
* *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No.	Marks :
Short Answer (SA)	No. 6	Marks : 12
Very Short Answer (VSA)	No. 5	Marks : 5
Objective (O)	No. 8	Marks : 8

Scheme of Options :

Scheme of Sections :

Transport and Communication

Class : IX

Time : 40 mts.
M. Marks : 25

INSTRUCTIONS

I. All questions are compulsory.

II. Read the question carefully before trying to answer it.

III. Answers have to be written on the answer-book provided.

IV. Be quick in answering the questions.

V. Do not waste time on the question the answer of which you are not sure. Pass on to the next.

VI. In questions 1 to 8, there are five answers marked A, B, C, D and E. Only one of these answers is correct. The letter indicating the correct answer should be written in bold letters against the question number in the answer book.

VII. Questions 1 to 13 carry one mark each and questions 14 to 19 carry two mark each.

1. Which of the following animals is best used as a means of transport in the tropical rain-forests ?
   A. Yak
   B. Bullock
   C. Elephant
   D. Mule.

2. Which of the following sets of sea ports would lie on the direct route from Bombay to San Francisco ?
   A. Singapore ; Sydney
   B. Colombo ; Honolulu
   C. Capetown ; Valparaiso
   D. Suez ; New York

3. Which of the following advantages does the cablegram have over wireless for international communication ?
   A. Less expensive
   B. Better secrecy
   C. Less affected by physical disturbances
   D. Easier installation.

4. Which of the following makes Cairo one of the busiest airports in the world ?
    - A. Gateway to African interior
    - B. Convergence of east-west air routes
    - C. Suitability of air transport in desert lands
    - D. Transport of perishable goods from the Nile valley.

5. In respect of which of the following is road-construction in southern India relatively cheaper than in the Indo-gangetic plain.
    - A. Absence of floods
    - B. Hard, rocky land
    - C. Availability of cheap ballast
    - D. Relatively low relief.

6. In certain areas of Europe where traffic potential for water transport is very high, canals connecting two river systems have been built at a huge cost.

    Which of the following river links could have been most costly ?
    - A. Oder-Elbe
    - B. Oder-Vistula
    - C. Rhine-Elbe
    - D. Rhine-Danube.

7. In which of the following areas could construction and maintenance of roads be said to have become most costly on account of landslide ?
    - A. Eastern Himalayas
    - B. Western Himalayas
    - C. Western Ghats
    - D. Shillong Plateau

8. In which of the following airports will traffic increase most in case Soviet Union makes Moscow a free airport ?
    - A. Delhi
    - B. Bombay
    - C. Bangkok
    - D. Cairo.

9. Name one railway system which goes from the east coast to the west coast across South America.

10. Name the airport in India that lies on the Moscow-Djakarta route.

11. The following maps were consulted when drawing up a plan for railways; rainfall map, geological map, population map, agricultural map and industrial map. The map, containing which type of information, would still remain to be consulted ?

12. Show the following in the given map of the world air route from Delhi to Tokyo with one intermediate airport.

13. Show the following in the given map of the world: Sea route from Bombay to New York with one intermediate port.

14. When and where was the first airmail service introduced in India ?

15. State two shortcomings from which the Nile suffers as an inland waterway.

16. Why do the regions of heavy rainfall usually not have a well-developed network of railways ?

17. Why is the construction of locks essential to carry ships across the Panama Canal ?

18. Modern means of transport have been seen to have opened vast lands for human settlement in certain parts. Give two such examples.

19. Show the following on the given map of the world : the Trans-Siberian Railway with three major stations.

Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	7	8
Key	C	B	B	C	C	D	A	A

Q. No.	Expected outline answers	Value of points	Total
9.	Trans-Andean Railway	1	1
10.	Palam (New Delhi), Dum-Dum (Calcutta)	1	1
11.	Relief (Topography)	1	1
12.	Air-route, intermediary station (see the appended map)	1	1
13.	Sea route, intermediary station	1	1
14.	The first airmail service, was introduced in India in 1911/12 between Allahabad and Naini	1+1	2
15.	(i) Occurence of floods (ii) Presence of cataracts (iii) Silting in lower courses. (Any two from the above)	1+1	2
16.	Cost of construction and maintenance of railways in such regions are high.	1+1	2
17.	(i) To high a landneck to cut a flow canal across it. (ii) Locks are built to carry ships across, by raising or descending them in successive locks.	1+1	2
18.	Canadian Prairie/Russian Steppes/Australian Grasslands/South Siberia/Pampas (Any two)	1+1	2
19.	Draws and locates :		
	(i) Rail route	1½	
	(ii) Stations	½	2

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recalls	Means of Communication	O	1	1	C
2.	Knowledge	Recalls	Ocean routes	O	1	1	B
3.	Understanding	Compares	Means of Communication	O	1	1	B
4.	Understanding	Sees relevant facts	Air transport	O	1	1	B
5.	Understanding	Selects relevant facts	Road transport	O	1	1	B
6.	Application	Selects relevant facts	Inland waterways	O	1	2	A
7.	Application	Analyses	Road transport	O	1	2	A
8.	Application	Predicts	Air transport	O	1	2	A
9.	Knowledge	Recalls	Railways	VSA	1	1	C
10.	Knowledge	Recalls	Air transport	VSA	1	1	C
11.	Application	Judges Adequacy	Rail transport	VSA	1	1	B
12. 1	Skill	Draws	Air routes	VSA	1	2	B
12. 2	Skill	Draws	Ocean routes	VSA	1	2	B
13.	Knowledge	Recalls	Air routes	SA	2	2	C
14.	Knowledge	Recalls	Inland waterways	SA	2	2	C
15.	Understanding	Sees relevant facts	Rail transport	SA	2	2	B
16.	Understanding	Gives examples	Other means	SA	2	2	B
17.	Understanding	Gives examples	Imp. and Types	SA	2	2	A
18.	Skill	Draws	Trans-Siberian Railway	SA	2	2	B

†*E*	*Essay*
VSA	*Very Short Answer*
SA	*Short Answer*
O	*Objective*

**A*	*Difficult*
B	*Average*
C	*Easy*

International Trade

Unit 18 : International Trade **Class : IX-X**
Maximum Marks : 30 **Time : 40 mts.**

BLUEPRINT

Objective / Form of Question / Content Unit	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
	E	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	
1. Import-Export Balance of Trade			1(1)	2(2)		2(1)	2(2)	2(2)				1(1)		2(1)	12(10)
2. World-Trade Commodities			1(1)			2(1)	2(2)				1(1)	2(2)			8(7)
3. Ports—Gateways of Inter-Trade						2(1)		1(1)						2(1)	5(3)
4. Developed Countries and India						2(1)	1(1)	1(1)				1(1)			5(4)
Sub Total			2(2)	2(2)		8(4)	5(5)	4(4)			1(1)	4(4)		4(2)	30(24)
Total	4(4)				17(13)				5(5)				4(2)		30(24)

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
* *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No.	Marks :
Short Answer (SA)	No. 6	Marks : 12
Very Short Answer (VSA)	No. 8	Marks : 8
Objective (O)	No. 10	Marks : 10
	24	30

Scheme of Options :

Scheme of Sections :

International Trade

Class : IX-X

Time : 40 mts.
M. Marks : 30

INSTRUCTIONS

I. All questions are compulsory.

II. Read the questions carefully before trying to answer.

III. Answers have to be written on the answer-book.

IV. Be quick in answering the questions.

V. Do not waste time on a question when you are not sure of the answer. Pass on to the next.

VI. In questions 1 to 10 there are four proposed answers marked A, B, C and D. Only one of these answers is correct. The letter indicating the correct answer should be written in bold letters against the question number in the answer-book.

VII. Questions 1 to 18 carry one mark each. Questions 19 to 24 carry two mark each.

1. Barter is a form of trade in which exchange takes place of :
   A. Commodities in surplus
   B. Unwanted commodities
   C. Goods for monetary gain
   D. Surplus for mutual advantage.

2. Principal importers of Indian goods are :
   A. The U. K., the U. S. A. and the U. S. S. R.
   B. Italy, Japan and New Zealand
   C. Canada, Switzerland and U. A. R.
   D. Australia, Sri Lanka and Indonesia.

3. The U. K. the U. S. A. and the U. S. S. R. are developed countries but they continue to trade with developing countries because of :
   A. Need for markets for produce from developing countries
   B. Economic dominance over developing countries

C. Paucity of raw materials in developing countries
D. High cost of production in developed countries.

4. The Indian Government has imposed heavy duties on certain imports, mainly to :
A. Become self-sufficient
B. Cut down imports of consumer items
C. Save foreign exchange as much as possible
D. Produce the kind of goods we import.

5. To earn the maximum amount of foreign-exchange for India in its international trade, the increase of production of which of the following would be necessary ?
A. Electrical goods
B. Textiles and cotton fabrics
C. Foodstuffs and drinks
D. Machinery goods.

6. If you want to subsidise cultivators by giving fertile agricultural land at nominal rates on the condition that they give priority to the growth of that crop that would strengthen the trade balance, cultivators would grow :
A. Coffee
B. Cotton
C. Sugar
D. Tea.

7. The increase in production of which of the following commodities would result in a favourable balance of trade with the Middle East ?
A. Minerals and raw cotton
B. Electrical goods and chemicals
C. Hides, skins and leather
D. Fruits and Nuts.

8. Suppose you have amassed considerable stock of chemicals, fertilisers and electrical equipment. As an exporter which countries would you consider the best importers ? Select the one most favourable group.
A. The U. K., the U. S. S. R. and Japan
B. The U. S. A., Canada and Czechoslovakia
C. Saudi Arabia, Iran and Kuwait
D. Italy, Sweden and France.

9. Vishakhapatnam is a port which possesses the unique advantages of :
A. Location and railway connections
B. Natural harbour and sheltered backwaters
C. Silt-free coast and shipping facilities
D. Rich mining hinterland and ship-building facilities.

10. Formerly, the U. K., the U. S. A. and West Germany held the largest volume of India's exports-imports. Now, a shift is being noted, and this position seems occupied gradually by :
A. Canada, France, and Czechoslovakia
B. U. S. S. R., German Democratic Republic, and Yugoslavia
C. U. S. A., Canada and Australia
D. New Zealand, Ceylon and Indonesia.

11. Name the one most important commodity of India's exports bringing in the largest amount of foreign exchange.

12. Name the two most important countries, one each from Asia and Europe, which import India's iron ore.

13. How do you infer that the nature of India's balance of trade is unfavourable ?

14. Why is Bangaladesh's balance of trade unfavourable ? Give one important reason.

15. Identify the surplus country and market for sugarcane and cotton in the following table :

Commodities	*The one most important surplus country*	*The one most important market*
i. Sugarcane	—	—
ii. Cotton	—	—

16. Why do small countries like Belgium, Sweden and the Netherlands possess a larger volume of international trade than India ? Give one important reason.

17. Which one of the following commodities do you consider unimportant and that can be left out from the list of imports in order to save India's foreign exchange ?

    Iron-steel, chemicals, drinks, electrical goods, tabacco, mineral oil, camera, transistors and wrist-watches.

18. If you own mica mines in Rajasthan, and you are allowed to export mica to the U. S. A. on the condition of importing a commodity of an equal value, propose the name of the commodity you would like to import.

19. List items of export and import of India and analyse the trend of international trade.

20. 'A country with a small size and population is bound to have unfavourable balance of trade.' Analyse this statement and cite examples for/against it.

21. Prove that international trade is essentially a two-way traffic.

22. How can international trade be a powerful medium for seeking a balanced development of both developed and developing countries ?

23. In the map of India show the following ports and their respective exporting commodities : Bombay, Marmagao, Kandlas, Vishakapatnam.

24. Draw bar/circle diagram to represent the international export trade of India (1961) with the help of the following data.

Major Importers of India's goods	*% export value*
1. U.K. and U.S.A.	**40**
2. U.S.S.R.	**24**
3. Japan	**15**
4. West Germany and Canada	**10**
5. Others	**11**

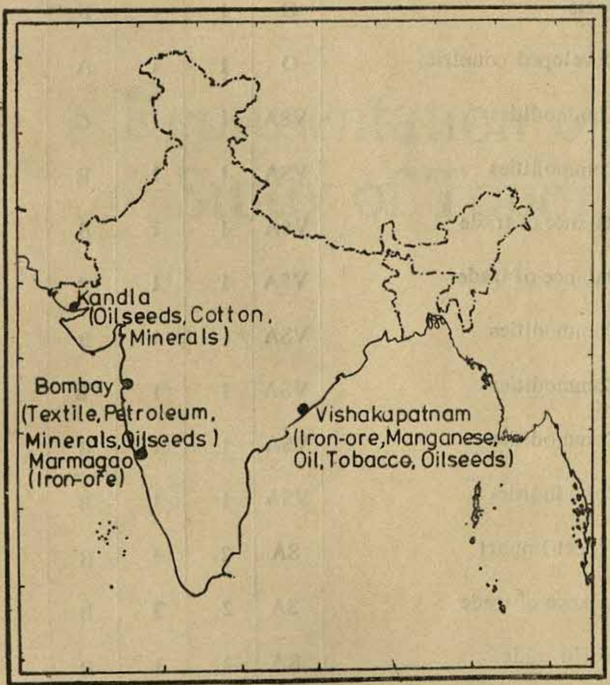
Scoring Key and Marking Scheme

Q. No.	1	2	3	4	5	6	7	8	9	10
Key	D	A	A	C	B	B	B	C	O	B

Q. No.	Expected outline answer		Value of points	Total
11.	Jute		1	1
12.	Japan, Yugoslavia		½	1
13.	Imports exceed exports in terms of value		1	1
14.	(i) Size (ii) Poor resource (iii) Technical knowhow (iv) Standard of living	(Any one reason)	1	1
15.	(i) India to middle East (ii) U.S.A. to Japan		½ ½	1
16.	(i) Economic development (ii) Technical progress (iii) Technical specialisation (iv) Standard of living.	(Any one reason)	1	1
17.	Drinks, tobacco, cameras, transistors and other consumer items		1	1
18.	(i) Machinery goods (ii) Electronics (iii) Transport equipment	(Any one)	1	1
19.	Items of export : textiles, tea, cotton fabrics, iron ore jute, engeneering goods, Import : chemicals, petroleum, electronics.		½	
	Purchasers : The U.S.A., the U.S.S.R., the U.K., Japan, West Asia, Eastern Europe Importers : The U.S.S.R., the U.S.A., Japan, Europe, Eastern Europe, Arab countries		½	
	Imports have a higher value than the exports. Over the years lesser export of raw material and more of finished goods.		1	2

Q. No.	Expected outline answer	Value of points	Total
20.	Limited resources, so trade not possible.	1	
	High technical knowhow, higher production and more exports in spite of a small population.	1	2
21.	Interdependence for goods because of the variation in distribution of resources.	1	
	Trade of surplus to purchase those goods not produced in a country.	1	2
22.	Localisation of resources.		
	Interdependence between nations.	1	
	Development of trade agreements and hence mutual cooperation.	1	2

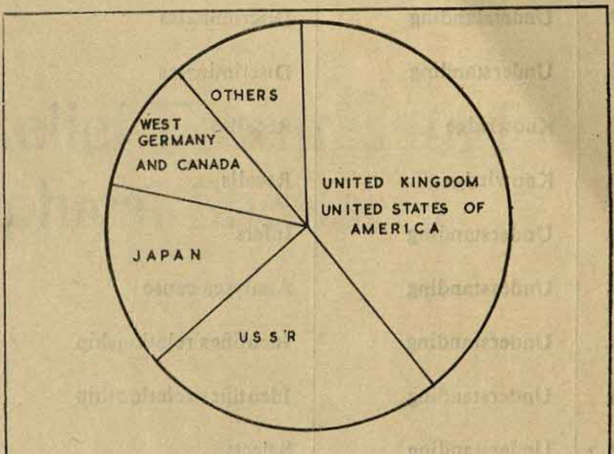
23.


Kandla
(Oilseeds, Cotton, Minerals)
Bombay
(Textile, Petroleum, Minerals, Oilseeds)
Marmagao
(Iron-ore)
Vishakupatnam
(Iron-ore, Manganese, Oil, Tobacco, Oilseeds)

2

The territorial waters of India extend into the sea to a distance of twelve nantical miles measured from the appropriate base line.

24.



2

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recalls	Barter	O	1	1	B
2.	Knowledge	Identifies	Export-Import	O	1	1	B
3.	Understanding	Gives reason	Export-Import	O	1	1	B
4.	Understanding	Gives reason	Export-Import	O	1	1	B
5.	Application	Takes decision	Commodities	O	1	1	A
6.	Application	Takes decision	Commodities	O	1	1	A
7.	Application	Takes decision	Export-Import	O	1	1	B
8.	Application	Takes decision	Export-Import	O	1	1	A
9.	Understanding	Discriminates	Ports	O	1	1	B
10.	Understanding	Discriminates	Developed countries	O	1	1	A
11.	Knowledge	Recalls	Commodities	VSA	1	1	C
12.	Knowledge	Recalls	Commodities	VSA	1	1	B
13.	Understanding	Infers	Balance of trade	VSA	1	1	B
14.	Understanding	Analyses cause	Balance of trade	VSA	1	1	B
15.	Understanding	Identifies relationship	Commodities	VSA	1	1	B
16.	Understanding	Identifies relationship	Commodities	VSA	1	1	B
17.	Understanding	Selects	Commodities	VSA	1	1	B
18.	Application	Proposes	Commodities	VSA	1	1	B
19.	Understanding	Analyses	Export-Import	SA	2	3	B
20.	Understanding	Analyses and cites examples	Balance of trade	SA	2	3	B
21.	Understanding	Concludes	World trade	SA	2	3	B
22.	Understanding	Analyses	Developed countries and India	SA	2	3	A
23.	Skill	Draws	Export-Import	SA	2	3	B
24.	Skill	Draws	Ports	SA	2	3	B

†*E* *Essay*
SA *Short Answer*
VSA *Very Short Answer*
O *Objective*

**A* *Difficult*
B *Average*
C *Easy*

Representation of Relief Features and Study of Topographical Sheets--I

Unit 19 : Representation of Relief Features and Study of Topographical Sheets

Maximum Marks : 30

Class : XI, XII
Time : 40 mts.

BLUEPRINT

Objective	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
Form of Question / **Content Unit**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	
1. Methods of Representing Relief		2(1)				2(1)									**4(2)**
2. Representation of Relief Features by Contours														6(3)	**6(3)**
3. Identification of Relief Features on Contour Maps						2(1)				4(2)				2(1)	**8(4)**
4. Gradient and Slope Analysis						2(1)				2(1)					**4(2)**
5. Inter-Visibility														2(1)	**2(1)**
6. Study of Relief Features on Topo-sheets.		2(1)								2(1)				2(1)	**6(3)**
Sub Total		4(2)				6(3)				8(4)				12(6)	**30(15)**
Total	4(2)				6(3)				8(4)				12(6)		**30(15)**

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate* ***marks.***

***** *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No.	**Marks :**
Short Answer (SA)	No. 15	**Marks : 30**
Very Short Answer (VSA)	No.	**Marks :**
Objective (O)	No.	**Marks :**

Scheme of Options: Nil

Scheme of Sections : Nil

Representation of Relief Features and Study of Topographical Sheets—I

Class XI-XII

Time : 40 mts.
M. Marks. : 25

INSTRUCTIONS

I. All questions are compulsory.

II. Read the questions carefully before answering.

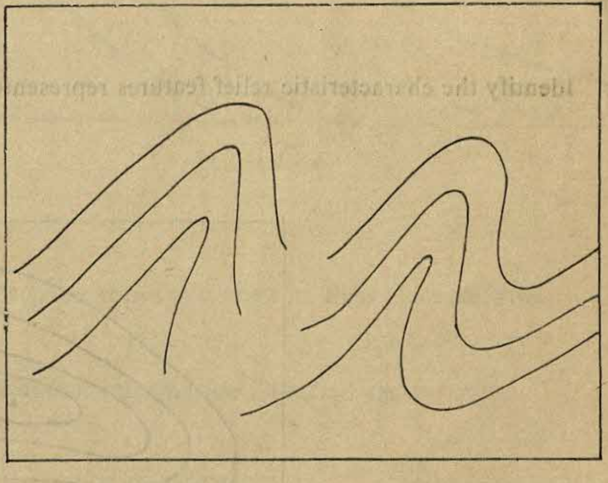
III. Do not waste time on questions the answers of which you do not know, pass on to the next.

IV. In questions 1 to 15 answers should not exceed 30 to 40 words.

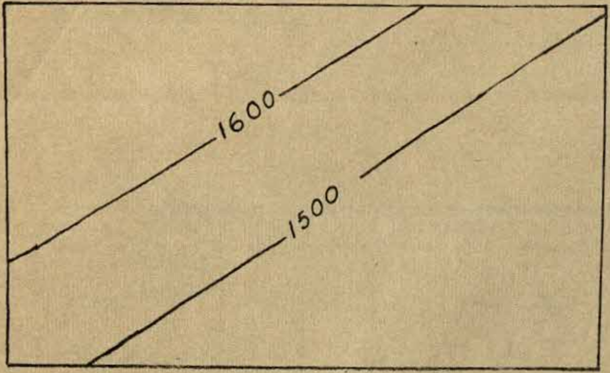
V. Answers are to be given in the answers book.

VI. Questions 1 to 15 carry 2 marks each.

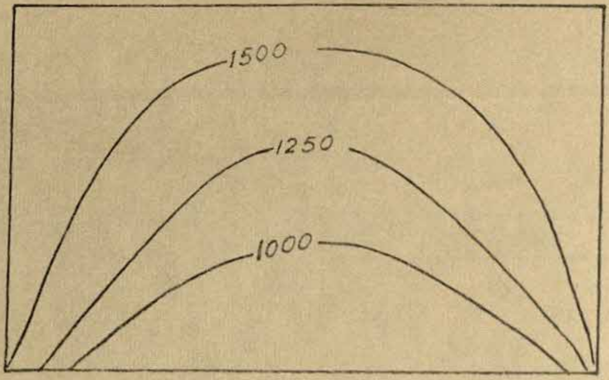
1. Name two commonly used methods representing relief features on topographical sheets.
2. Illustrate the distinction between spot height, trigonometrical point and bench mark.



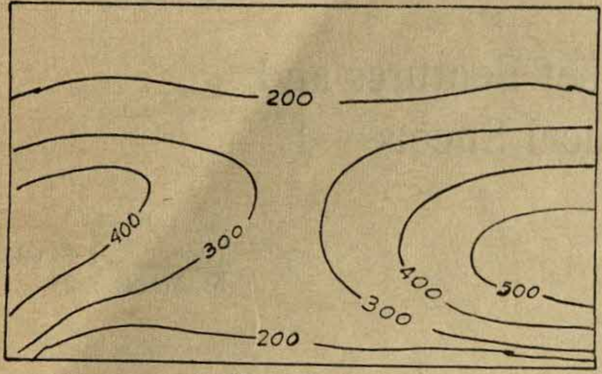
3. Mark the spurs and river valleys on the above contour map indicating the values of the contour of lines.



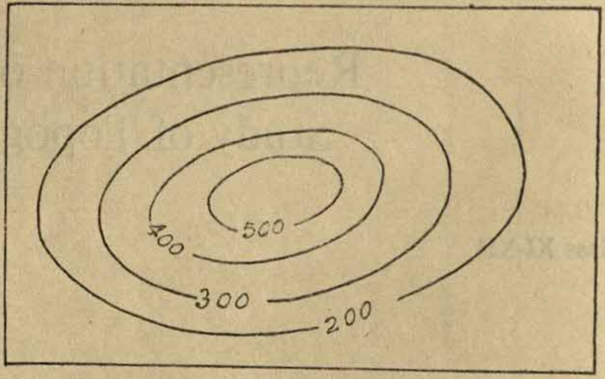
(a)



(b)

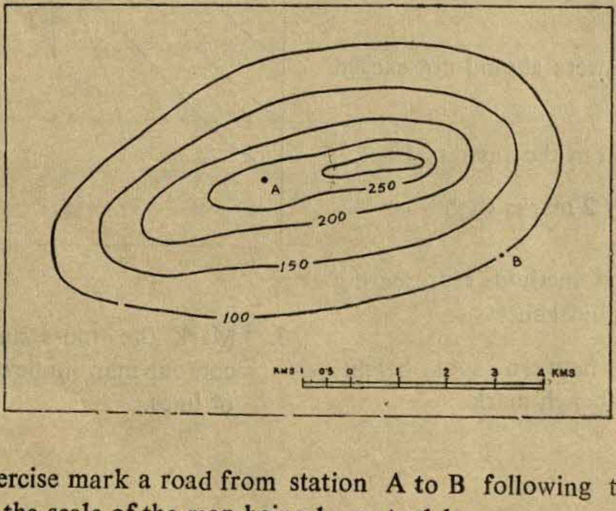


(c)

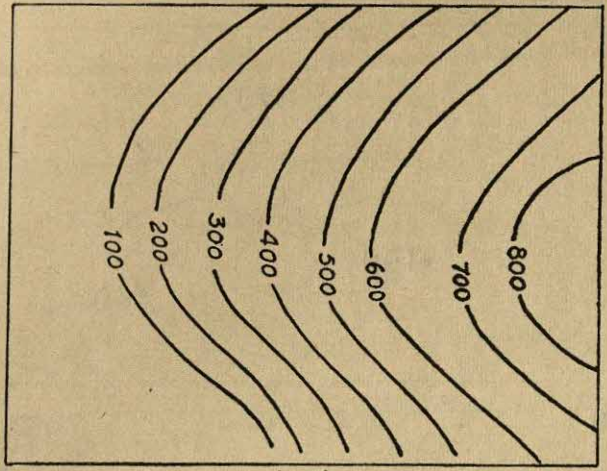


(d) 1:50000

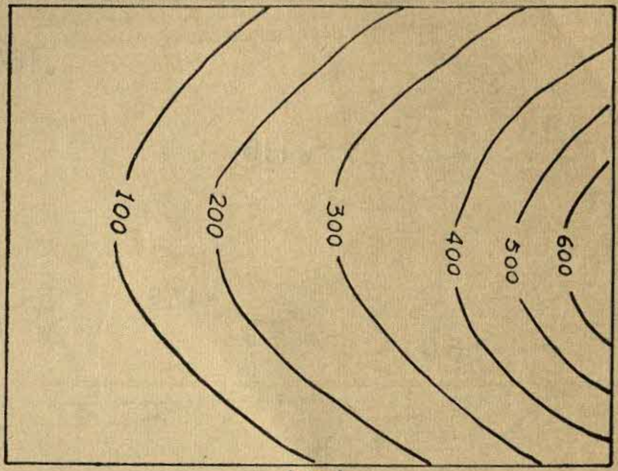
4. **Identify the characteristic relief features represented on the above contour maps.**



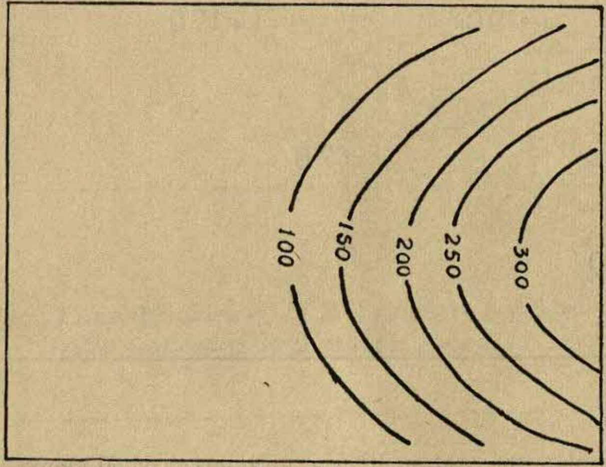
5. **On the above contour exercise mark a road from station A to B following the least gradient. Calculate the gradient of the road, the scale of the map being 1 cm. to 1 km.**



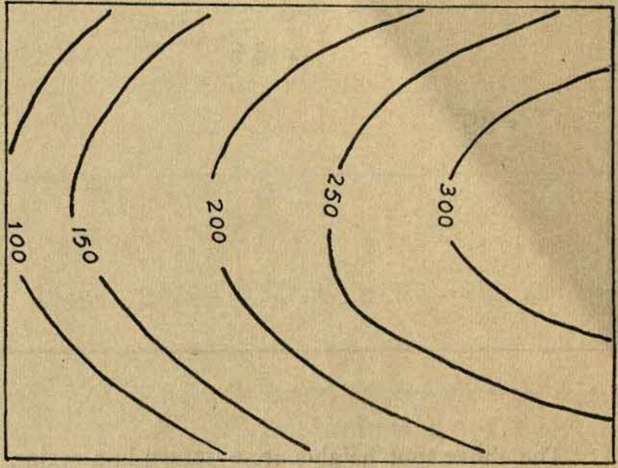
(a)



(b)



(c)



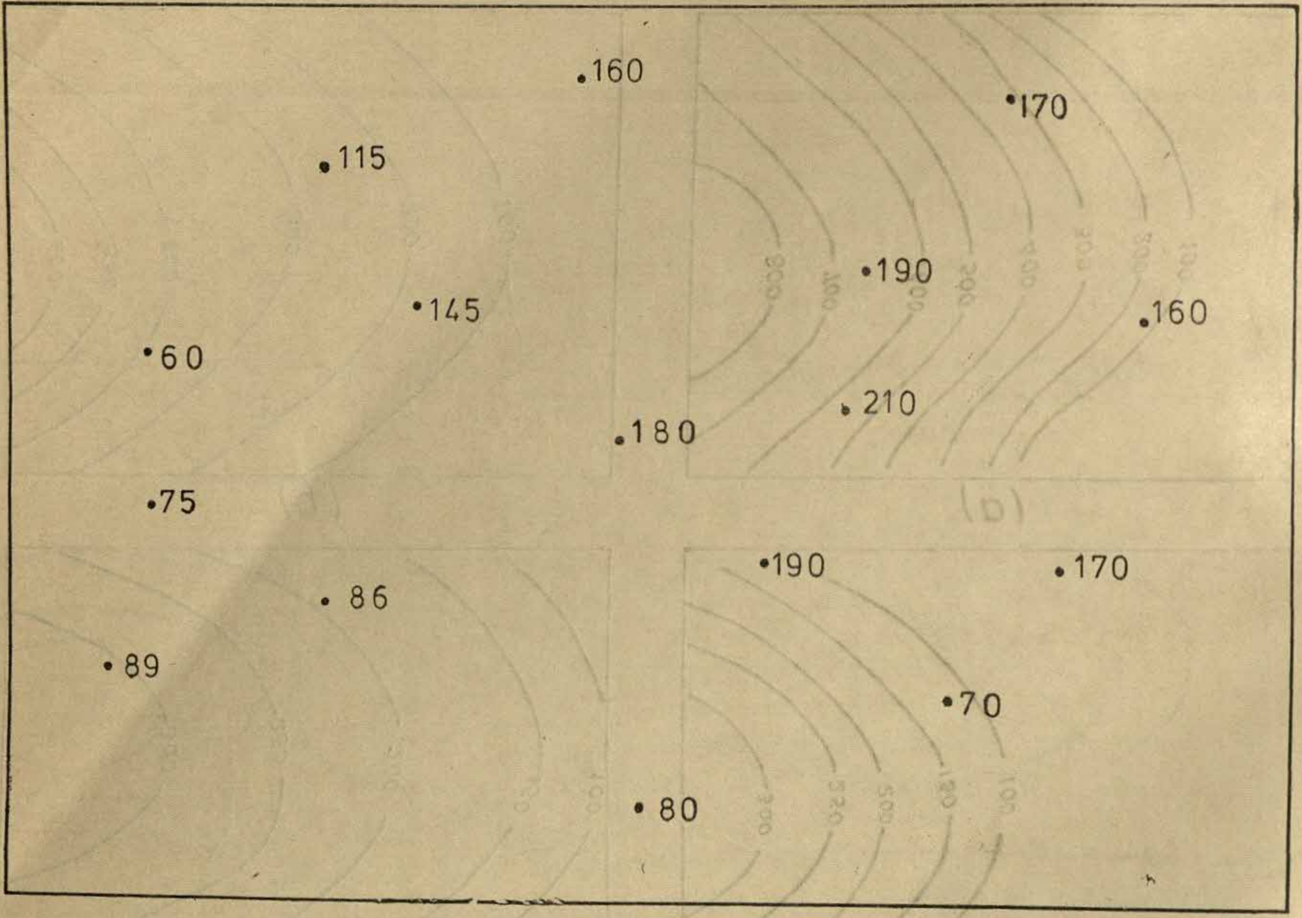
(d)

6. **Identify the types of slopes represented by the contours given above and mention their characteristics.**

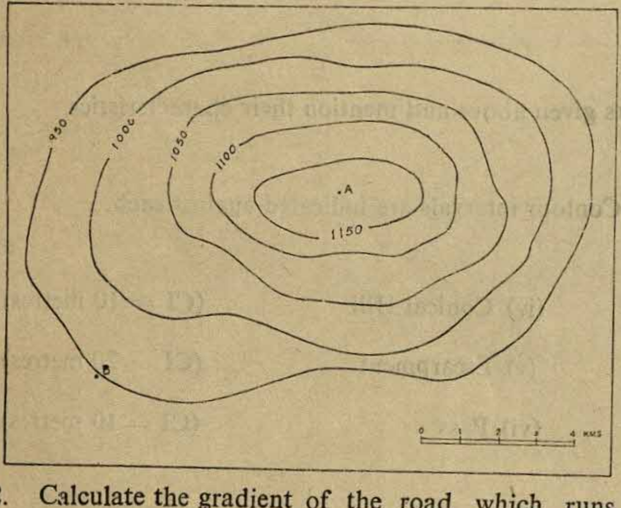
7-9 **Represent the following relief features by contours.** Contour intervals are indicated against each.

(i) V. Shaped Valley	**(CI = 20 metres)**	(iv) Conical Hill	(CI = 10 metres)
(ii) U. Shaped Valley	**(CI = 50 metres)**	(v) Escarpment	(CI = 20 metres)
(iii) A Plateau	**(CI = 50 metres)**	(vi) Pass	(CI = 10 metres)

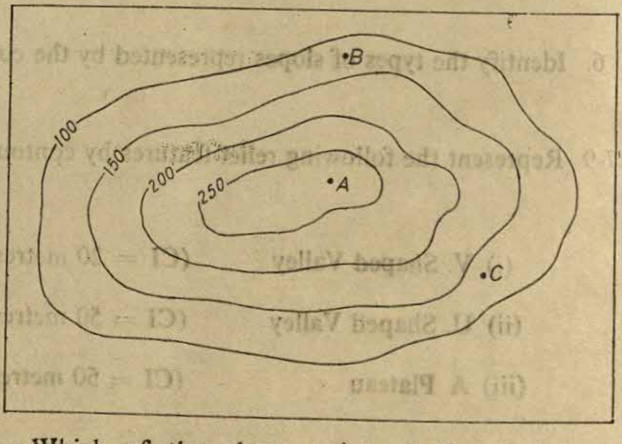
10. **From a given toposheet identify the main relief features crossed while travelling by the rail route.**



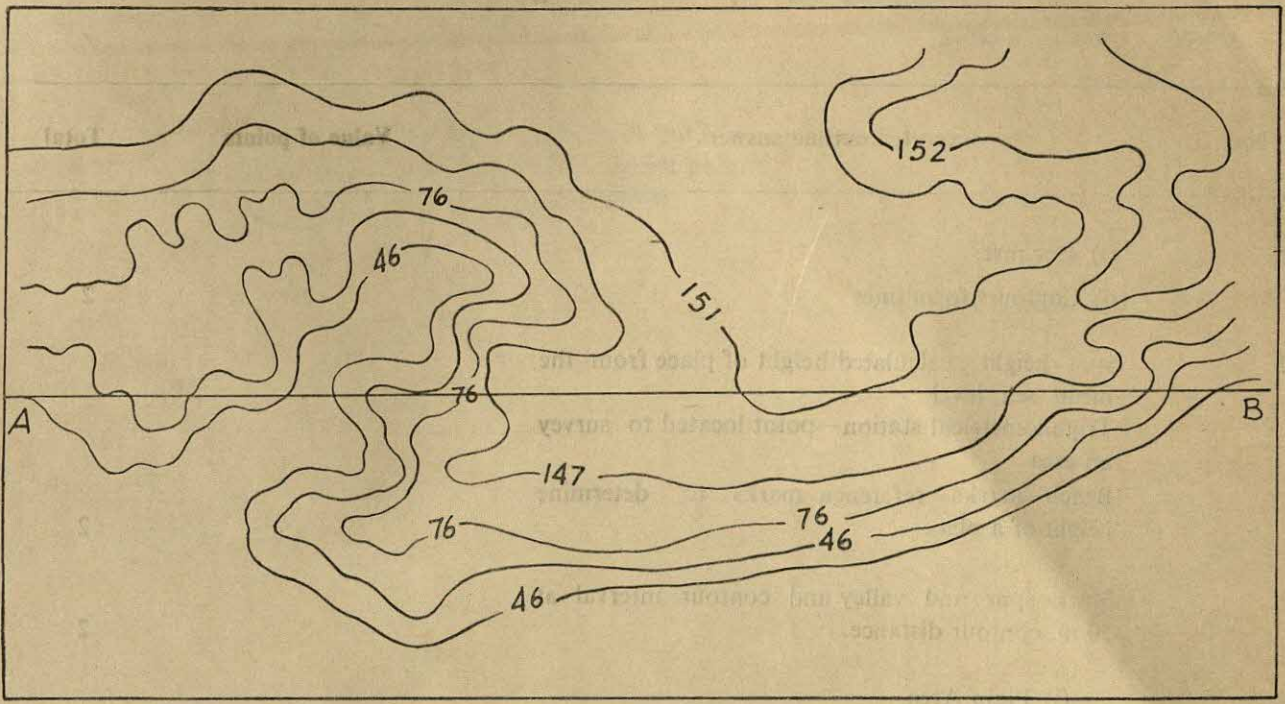
11. The above spot heights are observed in a region Interpolate the contour lines at an interval of 50 metres.



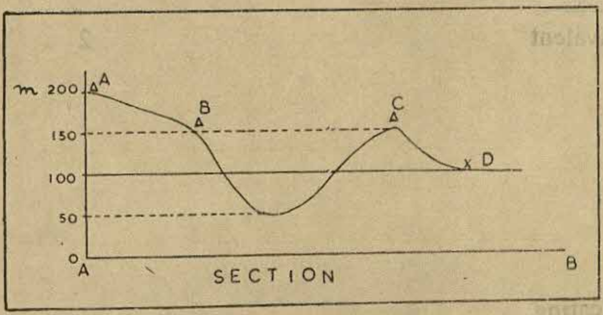
12. Calculate the gradient of the road which runs from A to B.



13. Which of the above points A, B and C on the given map are intervisible and give reasons why.



14. From the portion of a toposheet provided to you draw a profile from A to B showing the main relief features using a suitable scale.



15. Study the above profile and answer the following by T (for true) or F (for false).

(i) Point A is visible from B,C, and D points ....

(ii) Point A is visible from C and D............ ....

(iii) Point B is not visible from D...............

(iv) Point C is visible from B and D............ ....

(v) Point D is visible from points A and B ....

(vi) Point D is not visible from all the other stations.....................

Scoring Key and Marking Scheme

Q No.	Expected outline answers	Value of points	Total
1.	(i) Hachures (ii) Contours/form lines		2
2.	Spot height—calculated height of place from the mean sea level. Trigonometrical station—point located to survey an area. Bench marks—reference marks to determine height of a place.		2
3.	Mark spur and valley and contour interval at 50 m. contour distance.		2
4.	(i) Plain Area (ii) Spur (iii) Gap (iv) Conical hill		2
5.	Calculates gradient as $\frac{\text{Absolute Height}}{\text{Horizontal Equivalent}}$		2
6.	(i) Gentle slope (ii) Steep slope (iii) Concave slope (iv) Convex slope		
7-9.	Draws the six relief features correctly indicating contour interval and features.	½ mark each	2
0.	Describes relief along rail route.		2
1.	Interpolates the contour lines at 50 metre interval.		2
2.	Calculates gradient as $\frac{\text{Vertical distance}}{\text{Horizontal of equivalent}}$ $= \frac{220}{5509} = 1.250$ approx.		2

Q. No.	Expected outline answers	Value of points	Marks
13.	Points B and C are intervisible from A but B is not visible from C because A is the highest point and the land slopes down to B and C points.		2
14.	Draws profile.		2
15.	(i) T (ii) F (iii) T (iv) T (v) T (vi) F		2

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of Questions †	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recalls	Methods of representing relief	SA	2	2	C
2.	Knowledge	Recognises	Study of relief features on topographical sheets	SA	2	2	C
3.	Understanding	Illustrates	Methods of representing relief	SA	2	2	B
4.	Understanding	Identifies	Identification of relief features	SA	2	2	B
5.	Understanding	Identifies	Slope analysis	SA	2	2	A
6.	Application	Establishes relationship	Identification of relief feature on contour maps	SA	2	2	A
7.	Skill	Draws	Representation of relief features on contour	SA	2	2	B
8.	Skill	Draws	Contour	SA	2	2	B
9.	Skill	Draws	Contour	SA	2	2	B
10.	Understanding	Interpretation	Study of topographical sheets	SA	2	2	B
11.	Application	Establishes relationship	Slope analysis	SA	2	2	A
12.	Application	Establishes relationship	Slope analysis	SA	2	2	A
13.	Application	Establishes relationship	Intervisibility	SA	2	2	A
14.	Skill	Draws	Identification of relief features	SA	2	2	B
15.	Skill	Draws	Intervisibility	SA	2	2	B

†*E*	*Essay*
SA	***Short Answer***
VSA	*Very Short Answer*
O	*Objective*

**A*	*Difficult*
B	*Average*
C	***Easy***

Representation of Relief Features and Study of Topographical Sheets—II

Unit 20 : Representation of Relief Features and Study of Topographical Sheets—II **Class :** X
Max. Marks : 40 **Time :** 45 mts

BLUEPRINT

Objective →	*Knowledge*				*Understanding*				*Application*				*Skill*		Total
Form of Question / **Content Unit**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	**VSA**	**O**	**E**	**SA**	
1. Reading contour maps		6(2)					10(5)	2(2)						6(2)	**24(11)**
2. Interpreting topogra graphical sheets				3(3)			2(1)	6(6)		3(1)		2(2)			**16(13)**
Sub Total		6(2)		3(3)			12(6)	8(8)		3(1)		2(2)		6(2)	**40(24)**
Total	9(5)				20(14)				6(3)				6(2)		**40(24)**

Notes : *Figures within brackets indicate the number of questions and figures outside the brackets indicate marks.*
* *Denotes that marks have been combined to form one question.*

Summary

Essay (E)	No.	Marks :
Short Answer (SA)	No. 5	Marks : 15
Very Short Answer (VSA)	No. 6	Marks : 12
Objective (O)	No. 13	Marks : 13
	24	40

Scheme of Options :

Scheme of Sections :

Representation of Relief Features and Study of Topographical Sheets—II

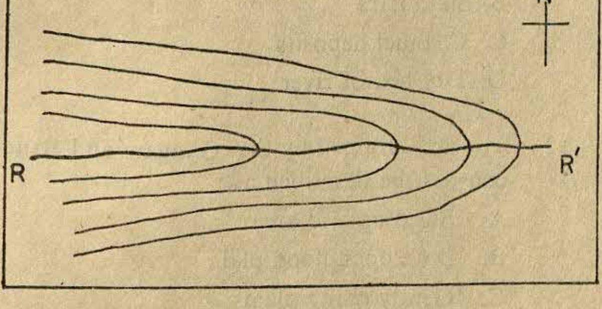
Class : X

Time : 45 mts.
M. Marks : 40

INSTRUCTIONS

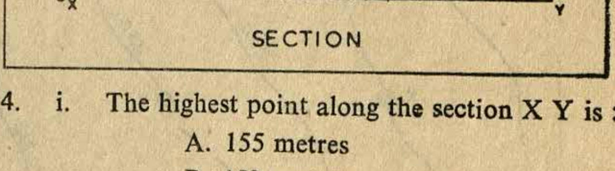
I. All questions are compulsory.
II. Read the question carefully before answering.
III. Marks allotted to questions 1 to 9 carry 2 marks and 10-16 carry 1 mark each.
VI. Answers are to be written in the answer book.

1. Name two commonly used methods of representing relief features on maps.



2. What information would be required to find the direction of RR' (River).

3. Give one reason why **hachures are not as commonly used for representing relief as contours in** toposheets ?



4. i. The highest point along the **section X Y is :**
   - A. 155 metres
   - B. 152 metres
   - C. 150 metres
   - D. 140 metres.

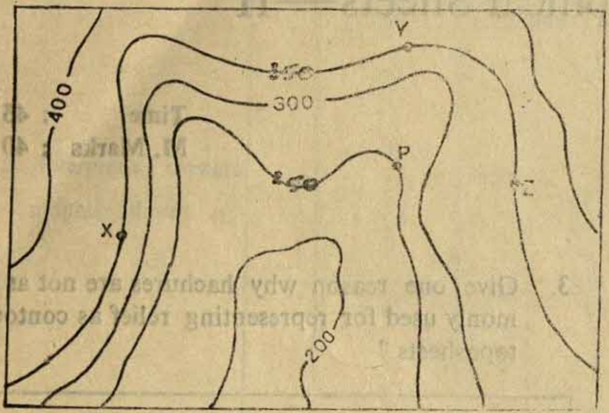
   ii. The feature at A is a :
   - A. Gentle slope
   - B. Valley floor

C. Gap
D. Small hill.

iii. The feature at B is a :
A. Conical hill
B. Spur
C. Terrace
D. Bank.

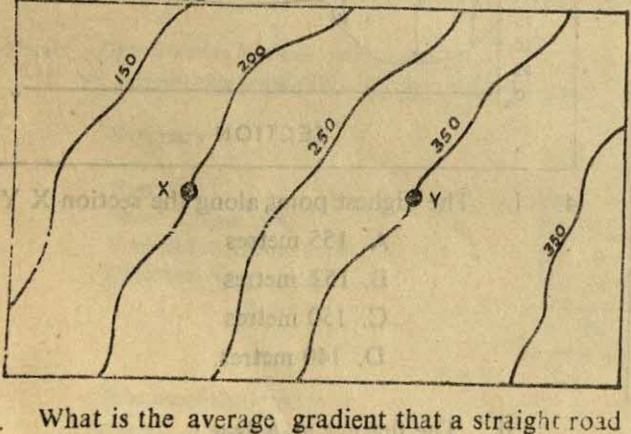
iv. The slope at C is a :
A. Concave
B. Convex
C. Uniform
D. Receding.

5.



Which of the points X,Y,Z are visible from P ?
Is X visible from Y and Z points ?

R.F. 1:50.000
C.I. 50 metres



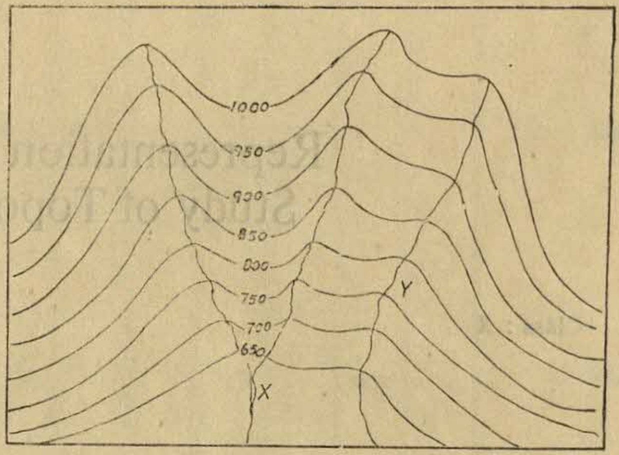
6. What is the average gradient that a straight road from X to Y takes.

7. Represent the following contours using the given contour interval.

(i) V. shaped valley	(CI metres 20)
(ii) Pass	(CI metres 10)
(iii) Escarpment	(CI metres 20)
(iv) Conical hill	(CI metres 10)

8. State an important difference between a spot height and a trignometrical station.

9.



In the diagram which streams (X, Y, Z) would result in a river capture of the other streams ?

Using the topographical sheet No. 53 K/8 Bijnor, of scale 1: 50,000 answer the following questions.

10. What are the grid locations of Nurpur and Tajpur ?

11. The features found at square 5892, 5988, 6394 are :
A. Water tanks
B. Sand bars
C. Channel deposits
D. Dry bed of river.

12. The area drained by the Gangan and Ban rivers can best be described as :
A. Steep upland area
B. Developed flood plain
C. Gently rising plains
D. Undulating plains

13. The roads in this area mainly :
    A. Connect all small villages
    B. Converge at large settlements
    C. Connect trunk roads
    D. Connect villages to railway stations.

14. The settlements in this area are distributed :
    A. Uniformly on the plains
    B. Distruction escarpment
    C. Mainly along river course
    D. Along the main roadways.

15. Dispersed settlements are well illustrated in square :
    A. 5392
    B. 6195
    C. 4189
    D. 5080.

16. The most well-connected place by rail and road are :
    A. Chandpur
    B. Tajpur
    C. Nurpur
    D. Pheona.

17. Which of the following towns in this area is well-connected as a nodal point by roads ?
    A. Chandpur
    B. Nurpur
    C. Tajpur
    D. Pheona.

18. The most conspicuous surface feature between 29° to 29.5° N lat. and 78° 20' to 78° 25' E long, is :
    A. Level land of alluvium
    B. Sand dunes on sandy plain
    C. Outcrops of rocky area
    D. Forested area with rocky outcrops.

19. Which of the following are true of the toposheet?
    A. The settlements on the map are highly clustered.
    B. The road pattern in the area is not influenced by relief.
    C. Sand bars line the banks of the river.
    D. No area exists in the entire region.
    E. Roads take the shortest distance between places.

20. Calculate the distance from Nurpur to Tajpur. What physical feature allows for such straight roads to be built between the two villages?

21. What is the direction of the Ban and Gangan rivers. Are they main streams or tributaries ?

Scoring Key and Marking Scheme

Q. No.	4.1	4.2	4.3	4.4	11	12	13	14	15	16	17	18	19
Key	C	A	B	A	C	B	B	A	D	A	B	B	E

Q. No.	**Expected outline answer**	**Value points**	**Total**
1.	Hachures and contours	1+1	2
2.	The height of the contours lines.	2	2
3.	Hachures only give a visual image unlike contours which depict actual height.	3	3
5.	X and Z are visible from P. X is visible from Y and Z.	1 1	2
6.	1 : 10 metre	2	2
7.	Draws contour maps showing a V-shaped valley Pass Ecarpment Conical hill	$\frac{1}{2}$ $\frac{1}{2}$ 1 1	$\frac{1}{2}+\frac{1}{2}+1+1=3$
8.	Spot height : Actual height of a place. Trignometrical station : Height at which surveying station was located.	1 1	1+1=2
9.	Streams X and Y with Y capturing the waters of stream X.	3	3
10.	Nurpur 545928 Tajpur 619948	1 1	2
20.	Nurpur to Tajpur distance in map : 15 cms. Scale of map : 2 cms=1 km. Actual distance: 7.5 Kms.	3	3
21.	Ban flows north to south. Gangan flows south to east. Both are tributary rivers.	1 1 1	3

Question-wise Analysis

S. No.	Objective	Specification	Content Unit	Type of Questions†	Marks allotted	Estimated time for answering	Estimated difficulty level*
1.	Knowledge	Recalls	Reading contour maps	SA	2	4	C
2.	Understanding	Identifies	Reading contour maps	VSA	2	2	B
3.	Knowledge	Recalls	Reading contour maps	SA	3	3	C
4.1	Understanding	Identifies	Reading contour maps	O	1	1	B
4.2	Understanding	Identifies	Reading contour maps	O	1	1	B
4.3	Understanding	Identifies	Reading contour maps	O	1	1	B
4,4	Understanding	Identifies	Reading contour maps	VSA	2	2	B
5.	Understanding	Identifies	Reading contour maps	VSA	2	2	B
6.	Understanding	Identifies	Reading contour maps	SA	4	3	B
7.	Skill	Draws	Representing relief contours	SA	3	2	C
8.	Understanding	Identifies	Contour symbols	VSA	2	2	B
9.	Understanding	Identifies	Contour maps	VSA	3	2	B
10.	Knowledge	Recalls	Topographical Sheet Interpretation	O	1	1	C
11.	Knowledge	Recalls	Topographical Sheets Interpretation	O	1	1	C
12.	Knowledge	Recalls	Topographical Sheet Interpretation	O	1	1	C
13.	Understanding	Identifies	Topographical Sheet Interpretation	O	1	1	B
14.	Understanding	Identifies	Topographical Sheet Interpretation	O	1	1	B
15.	Application	Selects relevant facts	Topographical Sheet Interpretation	O	1	1	B
16.	Understanding	Compares	Topographical Sheet Interpretation	O	1	1	B
17.	Understanding	Compares	Topographical Sheet Interpretation	O	1	1	B
18.	Understanding	Compares	Topographical Sheet Interpretation	O	1	1	B
19.	Application	Selects relevant facts	Topographical Sheet Interpretation	O	1	1	A
20.	Application	Selects relevant facts	Topographical Sheet Interpretation	SA	3	5	A
21.	Understanding	Identifies	Topographical Sheet Interpretation	VSA	3	5	A

†*E*	*Essay*
SA	*Short Answer*
VSA	*Very Short Answer*
O	*Objective*

**A*	*Difficult*
B	*Average*
C	*Easy*

APPENDIX A

Instructional Objectives of Geography

OBJECTIVES

The pupil

I. Acquires knowledge of facts, events, terms, concepts, principles, generalisations, hypotheses, problems, methods, trends, symbols, tools, techniques, processes, etc. concerning geography.

II. Understands terms, concepts, principles, generalisations, trends, symbols, processes, etc.

III. Applies the acquired knowledge and its understanding to unfamiliar situations.

IV. Acquires skills related to the study of geography.

V. Develops interests related to geography.

VI. Develops positive attitude towards peoples and environment.

SPECIFICATIONS

I. Acquisition of Knowledge

The pupil

- I.1. recalls facts, terms, concepts, principles, processes, etc.
- I.2. recognises facts, terms, etc.,
- I.3. indicates information on map, charts, diagram, etc.,
- I.4. reads information represented in various forms such as maps, charts, diagrams, graphs, tables, etc.

II. Understanding

The pupil

- II.1. translates from one form of communication to another,
- II.2. distinguishes (discriminates or differentiates) between different facts, terms, etc.,
- II.3. compares,
- II.4. contrasts,
- II.5. classifies,
- II.6. arranges in a particular manner (order),
- II.7. explains (gives meaning, elucidates or clarifies),
- II. 8. summarises,
- II. 9. cites illustrations,
- II.10. detects errors,
- II.11. rectifies errors,
- II.12. identifies relationship between ends-means, causes-effects, etc.,
- II.13. extrapolates beyond some given data or communication,
- II.14. intrapolates simple gaps in data,

II 15. interprets data (information) presented in various forms,

II 16. identifies underlying assumptions.

III. Application

The pupil

III.1. analyses the situation to identify the problem,

III.2. selects relevant knowledge (facts, principles, etc.) to explain a new situation or to solve a problem,

III.3. judges adequacy, relevance, essentiality, verifiability, etc. of data or any other evidence,

III.4. reorganises (restructures) the material in a new situation,

III.5. establishes relationship,

III.6. formulates a hypothesis,

III.7. verifies (checks the consistency of) hypothesis,

III 8. draws inferences.

III.9. generalises principles, laws, etc.,

III.10. predicts outcomes in a given situation.

IV. Skills

The pupil

IV.1. draws maps, charts, diagrams, and other such graphical forms to depict geographical information,

IV.2. prepares models, tools, apparatuses, etc.,

IV.3. handles tools, apparatuses, etc.,

IV.4. preserves specimen and other exhibits of geographical significance,

IV.5. handles and displays material of geographical significance,

IV.6. makes observations accurately.

V. Interest

The pupil

V.1. reads literature related to geography,

V.2. collects geographical information from books, newspapers, etc.,

V.3. desires to know about life and activities of people in different parts of the State, the country and the world.

V.4. participates in the activities of the school geographical circle such as tours, excursions, etc.,

V 5. collects articles of geographical interest, such as specimens, pictures, etc.,

V.6. advances relevant geographical reasons to explain various human activities and natural phenomena,

V.7. observes geographical phenomena keenly,

V 8. visits places of geographical interest,

V.9. pursues hobbies related to the study of geography, such as modelling, photography etc.

VI. Attitudes

The pupil

VI.1. recognises the contribution made by various regions and peoples to the growth of modern civilisation,

VI.2 recognises the significance of interaction between man and his environment,

VI.3. realises the importance of inter-dependence at various levels among States, countries, regions, etc.,

VI.4. shows fellow-feeling and sympathy for groups of people other than his own in his country or outside,

VI.5. considers national problems in international context,

VI.6. realises the importance of the conservation of natural resources.

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